

ChoiceMMed

USER MANUAL

Portable Oxygen Concentrator



Version 1.0

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Introduction

Dear users,

Thank you for your purchase of ChoiceMMed's medical products! I hope you become a satisfied user of our products. This manual describes the precautions, operation procedures, basic functions and technical parameters of the product, as well as basic troubleshooting, return to the maintenance instructions, etc., will make you familiar with the product and the operation of the product. In order to ensure your effective use of the machine, please be sure to read the instructions carefully before use. Before you operate the machine, please make sure that you have read and understood the basic operation of the product. Please pay special attention to all Safety Instructions. If the product needs to be returned to the factory for maintenance, please refer to the Return Instructions on the following page and return the product according to the required contents. Please note that some legends in this manual may not be exactly the same as what you see in the machine, please refer to the actual. The oxygen tube parts mentioned in this manual should be in accordance with the specifications of the supporting products. If you have any questions about use or other matters, please contact the after-sales or authorized distributor of ChoiceMMed's in time.

The OCL-4/OCL-5/OCL-6/OCL-7 oxygen concentrator is generally used for patients who need oxygen, mountain climbers and high-altitude activities, and mental workers who need oxygen. OCL-4/OCL-5/OCL-6/OCL-7 can generate high concentrations of oxygen and can be used with nasal cannula to deliver oxygen from the oxygen concentrator to the user's body. The OCL-4/OCL-5/OCL-6/OCL-7 oxygen concentrator can be used in homes, institutions, vehicles and various mobile environments. The expected life of the OCL-4/OCL-5/OCL-6/OCL-7 oxygen concentrator is 5 years, the expected life of the molecular sieve is 1 year, and the expected life of the battery is 500 full charge/discharge cycles.

1. Quick Troubleshooting

This machine is designed in accordance with the product safety standard GB 9706.1-2007, the safety standard for medical electrical equipment. [Fault Repair] attached below will help you analyze and correctly repair the malfunction of the oxygen concentrator if the suggested steps not help. please use a spare oxygen concentrator and notify the supplier of this oxygen concentrator for repairs. Please do not try any other repairs. Any unauthorized repairs will result in the loss your warranty rights.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
The machine does not power on when press the on/off button	Battery is discharged or not battery is present	Attach external power supply or exchange battery with fully charged
	AC power supply is not connected properly	Check external power supply connection and verify green light is on
	DC cable is not connected properly	Check DC cable connection at the concentrator and at cigarette lighter or auxiliary DC power source
	Malfunction	Contact your equipment provider
No oxygen	Concentrator is not powered on	Press on/off button to power concentrator
	Nasal cannula is not connected properly or is kinked or obstructed	Check nasal cannula and its connection to concentrator nozzle
Any about LCD screen display, indicator light and/or alerts	Please refer to chapter 4	Please refer to chapter 4

2. Important Safeguards



DANGER (Indicates an imminently hazardous situation which could result in death or serious injury to the user or operator if not avoided.)

Measures to reduce the risk of burns, electric shocks, fire or body injury:

- Avoid using an oxygen concentrator in the shower. If necessary, follow your doctor's instructions and the oxygen concentrator must be used in a room 2.5 meters away from the bathroom.
- The recommended length of the oxygen tube should not exceed 11 meters and should not be deflated.
- Do not place or store the oxygen concentrator in a place where water or other liquids are easily dripped.
- Oxygen has combustion-supporting effect, oxygen machine should be far away from open flame and ignition source. Do not use oxygen concentrator when there are objects with high temperature, spark or open flame within 1.6 meters. Do not leave the machine unattended after the oxygen concentrator is energized.
- Do not smoke while inhaling oxygen. Do not smoke or light an open flame near the oxygen inhaler.
- Improper use of power cords and plugs may cause fire or other hazards such as electric shock and burns. Do not use machines with damaged power cords.
- Before cleaning the dust of the oxygen machine shell, the power plug must be removed to prevent electric shock.
- When the machine is running, please do not open the outer casing and internal chassis of the machine at will to prevent injury caused by touching the running parts.



WARNING (Indicates a potentially hazardous situation which could result in death or serious injury to the user or operator if not avoided)

- In order to prevent the oxygen concentrator from malfunctioning or encountering power outages, those who need oxygen at all times (such as urgent oxygen users and critically ill patients, etc.) need to be equipped with other backup oxygen supply devices (such as oxygen cylinders, oxygen bags, etc.).
- This machine cannot be used to maintain any life, it is recommended that

patients with aerobic therapy use this machine, the choice of flow and oxygen inhalation time, follow your doctor's guidance.

- If the patient experiences or shows discomfort or abnormal reaction when inhaling oxygen, please stop using this product immediately and contact the equipment supplier or doctor.
- For patients with serious illnesses who require additional instruction equipment or additional drug administration in conjunction with the use of this product, please consult your doctor before use and use as recommended by your doctor. If there is any adverse reaction, please inform the doctor immediately.
- If this product is used in places above 3000 meters above sea level, please consult the equipment provider.
- Do not share the same set of oxygen tubes with more than one person, which may cause cross infection of virus or bacteria between users.
- When inhaling oxygen, do not press the oxygen tube under the bed cover or the cushion of the chair. Do not sit on the oxygen tube, so that oxygen cannot pass through the tube normally and oxygen cannot be absorbed.
- When the product is operated without oxygen absorption, the oxygen produced will aid combustion. When no one is breathing oxygen, it is recommended to turn off the power switch and pull the plug.
- When using this product, pay attention to whether the power cord is stretched too long to prevent pedestrians from passing through.
- Personal and home use of 93% oxygen should follow the guidance of a medical professional.
- Patients with severe lung disease should consult with a medical professional to choose the amount of oxygen to be administered.

Product scope of application and contraindications

Scope of application:

Using air as raw material, the molecular sieve variable pressure adsorption process is used to produce oxygen-enriched air with an oxygen concentration range of 90% to 96% (V/V) for oxygen therapy or to relieve discomfort caused by lack of oxygen. Not to be used as life-sustaining equipment.

Contraindications: Oxygen toxicity, oxygen allergy patients are prohibited

Product expiration date: No expiration date

Product life expectancy

The life expectancy of OCL-4/OCL-5/OCL-6/OCL-7 series oxygen concentrator main

unit (excluding molecular sieve, battery pack and filter material) is 5 years, the life expectancy of molecular sieve is 1 year, and the life expectancy of battery is 500 times full charge/discharge.

Production date

See product host label for details

Performance indicators in the product technical requirements

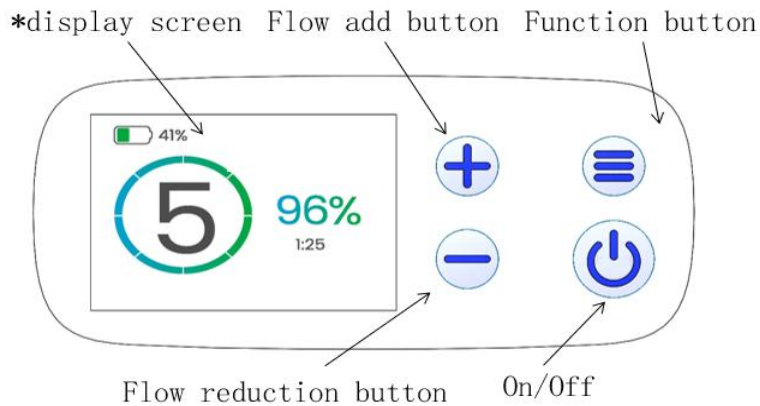
See product host label for details

3. Product Overview

Product Technical Parameters

Name	OXYGEN CONCENTRATOR
Dimensions	Host (Exclude battery): 187 x88 x184mm Host (Include 8-Core battery): 187 x88 x217mm Host (Include16-Core battery): 187 x88 x237mm
Weight	Host (Exclude battery): 164 kg Host (Include 8-Core battery): 216 kg Host(Include16-Core battery): 258 kg
Battery Duration (Setting 1)	8-Core battery: up to 6 hours 16-Core battery: up to 12 hours
Warm up time	Oxygen reach to 90% in 2 minutes
Sound Level (dBA)	≤60 dBA
Oxygen Purity	Oxygen concentration 90%-96%(V/V)
Max Limited Pressure	0.15Mpa±25%
Flow Setting	1-6 Setting
Flow Rate(ML/min)	Setting1-210min, Setting2-420ml/min Setting3-630min, Setting4-840ml/min Setting5-1050min, Setting6-1260ml/min
AC Power supply	100-240V 50-60Hz
Operating Temperature	5°C -40°C
Storage Temperature (Host & Battery)	-25°C-55°C
Operating Altitude	0-10,000 ft.(0- 3048 m)
Operating Humidity	Relative humidity: ≤80%
Warranty Period	Host : 3 Years Battery : 1 Year
Operating environment	a) Environment temperature: 5°C~40°C; b) Relative Humidity: ≤80% c) Barometric pressure: 86~106kPa; d) Power Supply: AC 100-240V, 50-60Hz; Internal Power(battery): DC12-16.8v

4.Oxygen Concentrator Overview



* The actual display may be different

User operation introduction

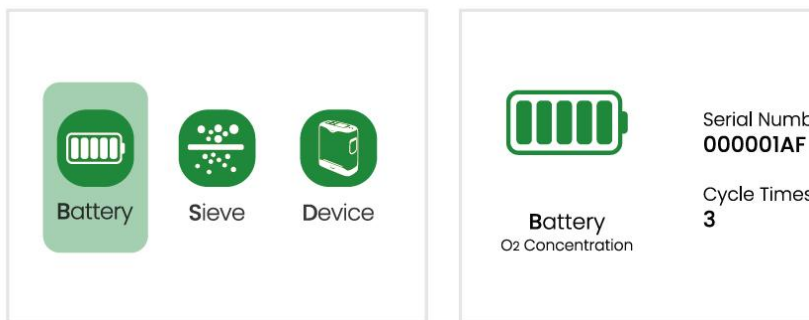
On/off button

Press once to turn "ON"; Press and hold for one second to turn "OFF"



Function buttons

Press the function button once to enter the following interface to view or set the information or parameters of each function module.



*Actual display appearance maybe difference.

Flow Setting Control Buttons

Use the (-) or (+) flow setting control buttons to select the setting as shown on the display.

User Interfaces

Display

This screen displays information regarding flow setting, power status, battery life and errors. Actual display appearance maybe difference.



Indicator Lights

A green light indicates breath detection. A yellow light indicator either a change in operating status or a condition that maybe need response(alert). A flashing light is higher priority than on-flashing.



Audible Signals

An audible signals (beep) indicates either a change in operating status or a condition that maybe need response(alert). Mode frequent beeps indicate higher priority conditions.



Backlight

A backlight will illuminate the screen for 15 seconds when the on/off button is briefly pressed.

Input / Output Connections

Input/output connection

Inlet filter

The filters on both sides must be installed at the intake end of the oxygen concentrator to keep the input air clean.



Nasal Cannula Nozzle Fitting

The nasal cannula connects to this nozzle for oxygen concentrator output of oxygen.



DC Power in

Connection for external power from the AC power supply or DC power cable.

Power Supply Options

8-core battery and 16-core battery



The battery can power portable oxygen concentrators without connecting to an external power source. When fully charged, the 8-core battery can be used for up to 6 hours at 1 speed; the 16-core battery can be used for up to 12 hours at 1 speed. The batteries can be recharged after they are properly installed in the portable oxygen concentrator and connected to AC power. 8-core batteries can be recharged in approximately 2.5 hours and 16-core batteries in approximately 5 hours. See the information in the **Battery Care and Maintenance** section.

Power Supply

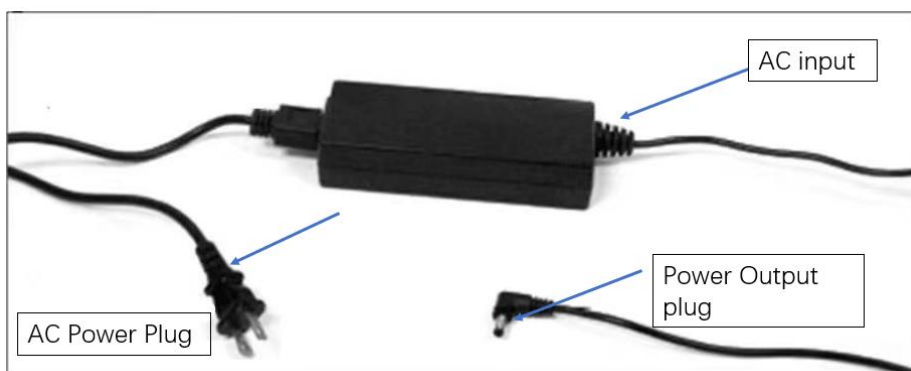
The oxygen concentrator power supply is specifically designed for use with the OCL-4/OCL-5/OCL-6/OCL-7 concentrator. The AC power supply provides the precise current and voltage required to safely power the oxygen concentrator and is designed to operate from specified AC power sources. When used with AC power sources, the power supply automatically adapts to input voltages from 100V to 240V(50-60HZ) permitting use with most power sources throughout the world.

The AC power supply will charge battery when used with AC input power. Due to aircraft power limitations, the AC power supply cannot be used to charge the OCL-4/OCL-5/OCL-6/OCL-7 battery when used on an aircraft.

AC Power Supply use following components:

- Power supply adapter
- AC power input cable

OXYGEN CONCENTRATOR Power Supply Adapter



Actual product appearance maybe difference



Do not use power supplies or cables other than those specified in this manual.

The use of non-specified power supplies or power cable may create a safety hazard and/or impair equipment performance. Do not wrap cords around power supply for storage, do not drive, drag or place objects over cord. Doing so maybe lead to damage cords and a failure to provide power to the concentrator. To avoid danger of choking or strangulation hazard. Keep cords away from children and pets.

Accessories



Do not use power supplies/adapters or accessories other than those in this user manual. Use of non-specified accessories may pose a safety hazard and/or impair equipment performance.

Nasal Cannula

Nasal cannula must be used with the oxygen concentrator to provide oxygen. Nasal cannula up 3 meters long is recommended to ensure proper breath detection and oxygen delivery. ChoiceMMed do not specified nasal cannula.



Cannula replacement

Consider cannula single-use product, ChoiceMMed do not recommend to reuse cannula to prevent disease by virus or bacteria contamination. Each package contains 1p cannula. Cannula can purchase from dealer ChoiceMMed is not response for an adverse reaction due to reuse nasal cannula.

Note: Increasing the cannula length maybe reduce the noise during oxygen bolus delivery.

Note: When using a cannula 7 meter in length, an increase in flow setting maybe required.

2. Operating Instructions

General Instructions

Place the portable oxygen concentrator in a well-ventilated location.

Place



The intake and exhaust channels must be unblocked. Keep it in place so you can hear the alarm. Always in the vertical position, ensure that the intake filter is installed in place.



Avoid using a portable oxygen concentrator in the presence of contaminants, water mist or smoke. Do not use a portable oxygen generator in the presence of easy anesthetics, cleaning agents or other chemical gases.

CAUTION When operating the equipment, do not block the intake or exhaust ports. Clogged air circulation or proximity to a heat source can cause internal heat to build up and shut down or damage the device.

CAUTION Portable oxygen concentrators are designed for continuous use. For optimal molecular sieve life, this product should be used frequently.

3. Install Battery

Insert the portable oxygen concentrator battery into place by sliding battery into place until the latch returns to the upper position and heard "clicking" sound.



CAUTION The battery of the portable oxygen concentrator can be used as a backup power supply in case of planned or accidental loss of AC/DC external power supply. When operating the device from an AC external power source, properly installed portable oxygen concentrator batteries should be retained in the equipment. This program will ensure uninterrupted operation and will run all alarms in the event of an external power outage.

4. Connect the power supply



Connect the AC input plug to the power supply. Connect the AC power plug to the power supply, and connect the power output plug to the portable Oxygen concentrator. The screen will be illuminated once and the machine will emit a beep.

CAUTION Ensure that the external power supply is in a well ventilated position and relies on air circulation for heat dissipation. The external power supply may generate heat during operation. Ensure that the external power supply is cooled before use.

CAUTION External power supply is not water resistant.

CAUTION Do not disassemble the power supply, this may lead to failure and/or safety risk.

NOTE: Under certain conditions (see Technical Specifications) the power supply may shutdown. The green LED will blink or will no longer be illuminated. If this occurs, disconnects the power supply for at least 10 second and reconnect.

NOTE: When the power supply is disconnected from the AC outlet, also disconnect it from the concentrator to avoid unnecessary battery discharge.

5. Connect the nasal cannula tubing to the nozzle fitting

The oxygen outlet connector is located on the top of the portable Oxygen concentrator. It is recommended

to use a nasal oxygen tube with a length of 2-3 meters to ensure correct respiratory detection and oxygen delivery. When using specific nasal oxygen tubes, additional calibration may be required to ensure appropriate oxygen delivery.



CAUTION to ensure oxygen flow, ensure that the nasal cannula is properly connected to the nozzle fitting and that the tubing is not kinked or pinched in any way.

CAUTION Replace the nasal cannula timely. Check with your equipment provider or physician to determine how often the nasal cannula should be replaced.

6. Press the on/off button, turn on portable oxygen concentrator

A single beep will sound after LEO2 logo is displayed. "Please waiting" will appear while the oxygen concentrator starts up. The LCD screen will display the selected flow

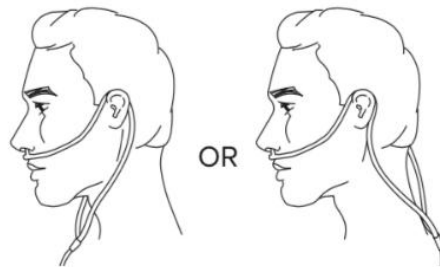
setting and power status. The warm up period up to 2 minutes will initiate. During this period the oxygen concentration is rising but may not reach to specification. Additional warm up time may be needed if the device use in extremely cold temperature.

7. Set oxygen concentrator to suitable flow rate

Using (+) or (-) button to adjust oxygen concentrator to the desired setting. The current setting can be reviewed on the LCD screen.

8. Put the nasal cannula on your face and breath through your nose

OXYGEN CONCENTRATOR will intelligent sense the onset of inhalation and deliver a burst of oxygen at a precise time when you inhale. Oxygen concentrator will sense each breath and continue to deliver oxygen in this manner. When your breathing rate changes, oxygen



concentrator will sense these changes and deliver oxygen only as you need it. At time, if you inhale very quickly between breaths the oxygen concentrator may ignore one of the breaths, giving the appearance of a missed breath. This may be normal as the oxygen concentrator senses and monitors the changes i your breathing pattern. The oxygen concentrator will normally sense the next breath and deliver oxygen accordingly. A green light will flash each time a breath is detected. Ensure the nasal cannula is properly aligned on your face and you are breathing through your nose.



Warning If you begin to feel ill or discomfort while using this device, please stop using immediately.

CAUTION The Portable Oxygen Concentrator is designed to provide high purity oxygen flow. If the oxygen concentration drops, a "low oxygen" warning will notify you. If the alarm persists, please contact the equipment supplier.

To disconnect the power supply, disconnect the input power cord (i.e., the wall AC socket) from the Portable Oxygen concentrator.

Clean, care and maintenance

Replace nasal cannula

Your nasal cannula should be replaced on a regular basis. Consult with your device provider and/or cannula manufacturer's instructions for replacement information. A single cannula up to 3 meter in length is recommended to ensure proper breath detection and oxygen delivery.

Cleaning Case

Use a cloth dipped with a mild liquid cleaner and water to clean the case. Do not use alcohol, isopropyl alcohol, vinyl chloride, or petroleum-based cleaners to clean the housing or intake filter. Do not immerse it or its accessories in water or allow water to enter the housing, this may cause shock and/or damage.

Intake filter cleaning and replacement

The intake filter recommends to clean weekly to ensure the ease of air flow. Remove filters from the front of the device. Clean the filter with a mild liquid detergent and water, rinse in wat and dry before reuse.

It may be necessary to clean the intake filter more often in dusty environment. Contact your equipment provider or our company to purchase additional intake filters.

Output Filter

The output filter is intended to protect the user inhale small particles in the product gas flow oxygen concentrator includes an output filter. It locates behind the removable cannula nozzle fitting. Concentrator requires that output filter must be replaced between users. The output filter can be replaced by concentrator provider or by user using the output filter replacement tools. The oxygen concentrator must be cleaned and disinfected as per the above instructions for each new user. Users do not need to perform special maintenance on their oxygen concentrator. Your equipment supplier can perform maintenance operations to ensure continued reliable service for your equipment.

Intake Cotton Filter

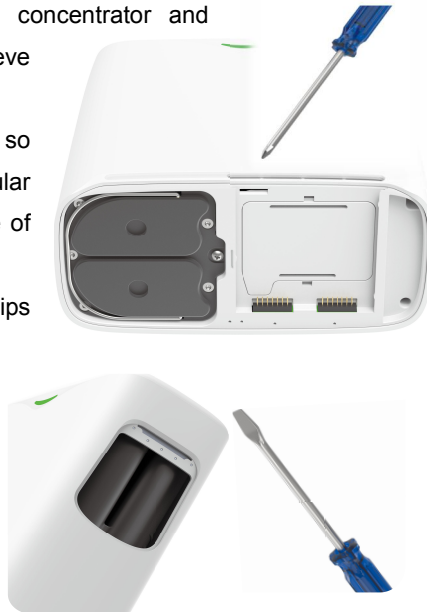
After the battery is removed from the main unit, the air intake filter is located in the bottom cover of the main unit, and can be replaced by removing the bottom cover. The air intake filter is used to filter smaller particles and remove water. It is recommended to replace it once a month. The replacement method is shown below.



Molecular sieve replacement

This replacement procedure is only to be used when maintenance is required and is not intended for practice purpose.

1. Press the power button to turn off the oxygen concentrator
2. Remove the battery from the oxygen concentrator and remove the inlet filter on the molecular sieve side.
3. Place the oxygen concentrator on its side so that the lower side is visible. The molecular sieve assembly can be seen on one side of the unit.
4. Remove the bottom screw with a Phillips head screwdriver.
5. Use a Phillips screwdriver to push the molecular sieve out of the interface through the opening in the air inlet screen by pressing the step in the middle of the molecular sieve.
6. Completely remove the molecular sieve assembly from the portable oxygen concentrator. Remove the two sieve cartridges as a single unit.



Molecular Sieve Installation

7. Remove the dust cap from the molecular sieve assembly. Make sure there is no dust or debris in the area where the dust cap was placed.
8. Insert the molecular sieve assembly into the oxygen concentrator. Do not leave the end of the molecular sieve exposed; the molecular sieve assembly should be inserted into the unit as soon as the dust cap is removed.
9. Push the molecular sieve assembly into the unit until the molecular sieve is fully seated in the unit. And use a Phillips screwdriver to lock the bottom screw.
10. Press the power button to turn on the oxygen concentrator and use it normally.

The use of molecular sieves other than those specified in this User's Manual may create a safety hazard and/or impair equipment performance and will void your warranty.

Other Service and Maintenance

Do not disassemble the oxygen concentrator or any accessories or attempt any maintenance other than tasks list in this user manual. Disassembly create a hazard of electrical shock and will void your warranty. Do not remove the tamper evident label. For events other than those list in this manual, contact your equipment provider for servicing by authorized personnel.

Do not use lubricants on oxygen concentrator or its accessories.

Additional Operating Instructions

Suitable for places where AC power is available

For operation of power supply using AC power source, follow these instructions:

1. Connect the AC input to the power supply.
2. Connect the AC power plug to the power source and connect the power output plug to the Oxygen Concentrator.

Traveling with your Oxygen Concentrator

The oxygen concentrator make travel by boat, car or train more convenient for oxygen user than even before. Now you get the same quality performance and convenience while on the go that you used oxygen concentrator at home. Here are some useful and important instructions for maximizing performance and convenience when using your oxygen concentrator while traveling.

Before traveling, you should be preparing AC power supply, DC power cable, extra battery if required.

For use in Automobile/Boat/Aircraft

For operation using a DC power source, follow these instructions:

1. Connect DC power output plug to the Oxygen Concentrator.
2. Connect DC power plug (Cigarette lighter adapter) to the power source.
3. The plug should insert into the socket without excessive force and securely remain place.
4. Check the LCD screen to confirm that an external power supply is connected. An icon of a battery with a lightning bolt or an AC power plug will be displayed on the screen, indicating that external power is connected and functioning properly.



Ensure that automobile power socket is adequately fused for the oxygen concentrator power requirement (min 15 Amp). If the power socket cannot support a 15-amp load, the fuse may blow or the socket may be damaged.



The tip of the cigarette adapter plug becomes HOT when in use. Do not touch the tip immediately after removal from cigarette lighter socket.

CAUTION Ensure the automobile power socket is clean of cigarette ash and the adapter plug fits properly, otherwise overheating may occur.

CAUTION Do not use the power supply with a cigarette plug splinter or with an extension cable. This may cause overheating of the DC power input cable.

CAUTION Do not start the automobile with the DC power cable connected. This may lead to voltage spikes which could shutdown and/or damage the DC power input cable.

CAUTION When powering the oxygen concentrator in automobile ensure the vehicle's engine is running first, before connecting DC cable into cigarette lighter adapter. Operating the device without the engine running may drain the vehicle's battery.

CAUTION A change in altitude (for example, from sea level to mountains) may affect total oxygen available to the user.

Traveling by air

Before you carry oxygen concentrator and plan to use it in aircraft, you should notice airline that you will use concentrator in aircraft. You should contact the assistance desk of airline on which you will be traveling to learn of any paperwork, etc. that might be needed.

Some airline may equip their aircraft with onboard electrical power. You may have an opportunity to request a seat with a power port which can be used for power oxygen concentrator. However, availability varies by airlines, aircraft and class of service. You should check with your airline or availability and always plan on having sufficient battery power for no less than 150% of the expected duration of the flight.

Before your flight

Here are some points to keep in mind:

1. Ensure your oxygen concentrator is clean, in good condition and free from damage or other signs of excessive wear or abuse.
2. Bring enough charged batteries, no less than 150% of the expected duration of

flight, plus a conservative estimate of unanticipated delays.

3. Arrive at airport early. Airport security person may require extra time to inspect your oxygen concentrator.
4. While waiting to board, you can conserve battery power by using the AC power supply to power your oxygen concentrator from an electrical outlet in the airport terminal.

During your flight

1. If using airline power port, remove the battery from the OXYGEN CONCENTRATOR. Due to aircraft power limitations, the AC power supply can not be used to charge the battery.
2. Connect the DC power plug for available airline power, check with airline persona to ensure compatibility.
3. During taxi, takeoff and landing, put your oxygen concentrator under the seat in front of you. oxygen concentrator will fit most airline seats
4. It is not necessary to turn off your oxygen concentrator during taxi, takeoff and landing.

CAUTION A change in altitude (for example, from sea level to mountains) may affect total oxygen available to the user. The oxygen concentrator has verified to provide oxygen to specifications up to 5,000 meter.

After your flight

Remember to recharge additional batteries before your next flight. Traveling by bus, train or boat, contact your carrier to find out about power port availability.

Battery Operating Instructions

Ensure that the battery is in place and charged. Disconnect the oxygen concentrator from its power source. While oxygen concentrator is operating on battery power, the battery will discharge. LCD screen will indicate remaining percentage (%) or minutes of use.

When the concentrator detects that the battery is low, with less than 10 minutes, a low priority alert will sound. When the battery is empty, the alert will change to a high priority.

When battery is low, do not do of the following:

- . Using AC power supply or DC power cable.
- . Turn off OXYGEN CONCENTRATOR, then replace to the charged battery.
- . If the battery is drained, charge the battery or take out from concentrator.

If the oxygen concentrator is powered by the AC power supply or DC power, battery will charge during operation. Leaving oxygen concentrator plugged in past the full charge time will not harm the concentrator or the battery.



The user is responsible for regularly checking the battery and replacing it as needed. Our company is not responsible for those who choose not to follow the manufacturer's recommendations.

Normal battery charging

To ensure that your battery is properly charged, check that the correct AC power output plug adapter is in use and correctly plugged into the power outlet. Observe the display or indicator light that displays the charging status.

Note When starting to charge a fully discharged battery the charging process may start and stop during the first few minutes.

Battery care and maintenance

You need to pay attention to the following items for the lithium-ion battery of your portable Oxygen concentrator to ensure proper performance and long life. Only use the battery of the portable Oxygen concentrator to connect to your portable Oxygen concentrator.

Keep Dry

Keep liquids away from battery. If battery becomes wet, discontinue use immediately and dispose of battery properly.

Effect of temperature on battery performance

The single battery powers oxygen concentrator up to 2.5 hours under most environment conditions. To extend the run-time of your battery, avoid running in temperature less than 5°C and not high than 35 °C for extended periods of time.

Battery remaining time

The portable Oxygen concentrator continuously displays the remaining battery time. The displayed time is only an estimated value, and the actual remaining time may differ from this value.


Please follow these guidelines to maximize battery performance and life:













1. Store battery in a cool, dry place. Store with a charge of 40-50%.
2. If using multiple batteries, make sure that each battery is labeled (1,2,3 or A, B, C,

etc.).





3. Take out battery if oxygen concentrator does not use in certain time.
4. Recharge battery do not long than 90 days.



5. Icons, Symbols and Alerts Explanation

<i>Symbol</i>	<i>Meaning</i>
WARNING 	A warning indicates that the personal safety of the user may be involved. Disregarding a warning could result in significant injury.
CAUTION	A caution indicates that a precaution or service procedure must be followed. Disregarding a caution could lead to a minor injury or damage to equipment.

	AC Power
	DC Power
	No Smoking while device is in use
	No open flames (concentrator) Do not incinerate(battery)
	Refer to instruction manual/booklet
	Manufacturer
	Keep Dry
	Indoor or dry location use only. Do not get wet
	Use no oil or grease
	Do not disassemble (contact your equipment provider for servicing by authorized personnel)
	Do not dispose of in unsorted municipal waster
	Type BF applied part, not intended for cardiac application

User interface

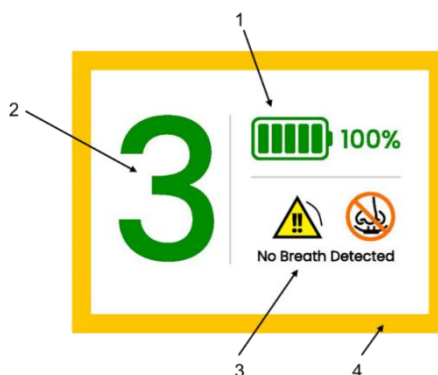
Symbol	Meaning
	On/Off button
	Increase flow setting
	Decrease flow setting
	Audible alert button

	Alarm sound off
	Alarm sound on(It turns on automatically when a new alarm is triggered)

Display

Oxygen concentrator display contains power status icons, mode icons, text with informational message and error notifications.

1. Battery status: display the icon and percentage of remaining power when the battery works alone;
2. Display the current working gear;
3. Alarm information bar: display alarm symbol, fault graph, fault text description;
4. Analog indicator light for alarm.



Notifications

Audio warning notifications (from 65dba to 70dba within a 1-meter range) are used to alert users to issues. When the portable Oxygen concentrator works normally, the general operator can correctly and clearly detect the visual alarm signal within 4 meters from it, and take relevant measures in time. To ensure that audible notifications can be heard, it is necessary to determine the maximum distance that users can leave to adapt to the surrounding noise levels. The alarm system of the Oxygen concentrator has been set before delivery, and the user cannot change the setting of the alarm system.

This portable oxygen concentrator monitors various parameters during operation and uses an intelligent alarm system to indicate equipment malfunction. Mathematical algorithms and time delays are used to reduce the probability of false alarms, while still ensuring proper notification of alarm conditions.



If multiple alarm conditions are detected, the highest priority alarm is displayed, and if multiple alarms of equal priority are detected, multiple alarms are displayed on a

rolling basis. Note that for low and medium priority alarms, failure to respond to an alarm condition may result in only minor discomfort or reversible damage that progresses in sufficient time to switch to an alternate oxygen source.

Power is lost for no more than 30 seconds, and the alarm settings prior to the loss of power are automatically restored.



Low priority alarms







The following low-priority alarm messages are accompanied by a double beep + the screen's yellow alarm light illuminates.

Message display &Text	Condition/Action/Explanation
 Low Battery	<p>The battery has less than 10% remaining.</p> <p>Connect to external power or turn off the power and replace with a fully charged battery.</p>
 Oxygen Low	<p>The oxygen output concentration of the oxygen concentrator has been below 82% for 10 consecutive minutes. If the condition persists, please contact your equipment supplier.</p>

Medium Priority Alarms

The following medium priority alarm message is accompanied by three beeps (repeated every 25 seconds) + a flashing yellow alarm light.

Message display &Text	Condition/Action/Explanation
 No Breath Detected	<p>The oxygen concentrator has not monitored breathing for 60 seconds. Check that the nasal oxygen tubing is attached to the oxygen concentrator, is not kinked, and is properly placed in the nose.</p>
 Oxygen Low	<p>The oxygen concentrator's output oxygen concentration has been below 40% for 10 consecutive minutes. If the condition persists, switch to a backup oxygen source and contact the equipment supplier to arrange for service.</p>

 <p>Battery Hot</p>	<p>When the oxygen concentrator is powered by the battery, the battery has exceeded the temperature limit. If possible, move the oxygen concentrator to a cooler location or power the oxygen concentrator with an external power source and remove the batteries. If the condition persists, contact your equipment supplier.</p>
 <p>System Malfunction</p>	<p>This alarm will appear when the pump does not start when the power is turned on or if a breath signal is detected but no gas comes out, and the power will automatically shut off after 10 seconds.</p>
 <p>System Hot</p>	<p>This alarm is triggered when the device detects that the system temperature exceeds the limit temperature, and automatically shuts down after 10 seconds.</p>
 <p>Fan Failure</p>	<p>Undetected fan rotation for 15 seconds triggers this alarm and automatically shuts down after 10 seconds.</p>
 <p>High Pressure</p>	<p>The pressure sensor detects that the pressure exceeds the limit value, which will trigger this alarm and automatically shut down the unit after 10 seconds.</p>
 <p>Low Battery Shutdown</p>	<p>Battery power is low, less than 5% battery power remaining. and automatically turns off after 10 seconds.</p>

Other technical alarms

The alarm system monitors the system temperature and pressure etc. through temperature sensor and pressure sensor, when the alarm threshold value is reached, the sensor will convert the signal into electrical signal to the circuit board and the system will issue an alarm. When the battery temperature or the internal temperature of the main unit is close to 65°C, the system will have an intermediate alarm and a safe shutdown; when the battery power is insufficient to produce oxygen, the system will have an intermediate alarm and a safe shutdown. When the system detects an obvious functional failure, such as the compressor does not work and the fan does not turn, the system will trigger a mid-priority alarm and safe shutdown.

6. Environmental protection

1. Disposal of waste and residue

When the oxygen inhalation tube, and the supporting parts are finished, please don't throw them away, they can be sent to the nearby medical waste disposal institution for disposal.

3. When the machine is scrapped, please contact our company after-sale in time.

4. The disposal of waste and residue should be in accordance with the corresponding national laws and regulations.

7. Electromagnetic compatibility

1. The equipment should be installed and used in accordance with the electromagnetic compatibility information in this appendix.

2. You must use the connection cable and switch provided by the company, and the power cord used in this equipment has passed the "CCC" certification.

3. Warning: The use of other manufacturers' accessories other than the connection cables and switches provided by our company may lead to an increase in emissions or a decrease in immunity.

4. In order to ensure that the portable oxygen concentrator can be used normally and that its emission will not be increased and immunity will not be reduced, please use the connection cable and related accessories provided by our company.

5. For the use of accessories, transducers or cables other than those specified with the portable oxygen concentrators, it may result in an increase in emission or a decrease in immunity of the equipment or system.

6. The portable oxygen concentrator should not be used with other equipment stacked on top of each other with the same or similar operating frequency. If it must be used on top of each other, it should be observed to verify that it can operate properly in the configuration it is used.

7. The basic performance is that oxygen can be output without unintended changes in operating mode.

8. The portable oxygen concentrators may cause electromagnetic interference to other diagnostic or therapeutic equipment during normal use, please maintain the proper distance from other equipment when using and carefully observe the correctness of the data during the use of their equipment.

9. Portable and mobile RF communication equipment may affect the use of this

equipment, it is recommended to keep away from portable and mobile RF communication equipment or keep it in off state when using this equipment normally.

10. Cable information

Cable name	Length (m)
Cable	1.5
Power adapter cable	1.2

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions GB 4824	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions GB 4824	Class B	The device is suitable for use in all facilities, including domestic and direct connection to the residential public low voltage supply grid for domestic use.
Harmonic emissions GB 17625.1	Class A	
Voltage fluctuations/ flicker emissions GB 17625.2	applicable	

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD)GB/T17626.2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.

Electrical fast transient/burst GB/T17626.4	±2 kV for power supply lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge GB/T17626.5	±1 kV wire to wire ±2 kV wire to ground	±1 kV wire to wire NA	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5%UT, lasting 0.5 cycles (95% dip on UT) 40% on UT. Last 5 cycles (On UT, 60% drop) 70% on UT. Last 25 cycle (30% drop on UT) <5%UT for 5s (>90% drop on UT)	<5%UT, lasting 0.5cycles (95% dip on UT) 40% on UT. Last 5 cycles (On UT, 60% drop) 70% on UT. Last 25 cycle (30% drop on UT) <5%UT for 5s (>90% drop on UT)	Mains power quality should be that of a typical commercial or hospital environment.
Power frequency (50/60Hz) magnetic field GB/T17626.8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: UT refers to the AC network voltage before the test voltage is applied.			

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test level	Compliance level	Electromagnetic environment - guidance
Conducted RF GB/T17626.2	3 V (effective value) 150 kHz – 80 MHz 3V/m		Portable and mobile RF communication equipment should not be used closer to any part of the device than the recommended isolation distance including cables, which should be calculated using the formula corresponding to the transmitter.


	80MHz-2.5GHz		<p>Recommended isolation distance</p> $d=1.2\sqrt{P}$ $d=1.2\sqrt{P} \quad 80\text{MHz}-800\text{MHz}$ $d=2.3\sqrt{P} \quad 800\text{MHz}-2.5\text{GHz}$ <p>In the formula</p> <p>P - the maximum output rated power of the transmitter provided by the transmitter manufacturer, in watts (W);</p> <p>d - recommended isolation distance, in meters (m).</p> <p>The field strength of a fixed RF transmitter is determined by surveying the electromagnetic field a, and should be lower than the corresponding level in each frequency range b.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p>a. Field strength from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.</p> <p>b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			

Table 4

Recommended separation distances between portable and mobile RF communications equipment and the

Device.			
The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter / m		
	150 kHz to 80 MHz $d=3.5\sqrt{P}$	80MHz to 800MHz $d=1.2\sqrt{P}$	800MHz to 2.7GHz $d=2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Beijing Choice Electronic Technology Co., Ltd.
2nd Floor, 3rd Floor and Room 410~412 4th Floor, No. 2 Building, No. 9
Shuangyuan Road, Shijingshan District, 100041 Beijing,
PEOPLE'S REPUBLIC OF CHINA