

TP-B1

Oxygen Concentrator

Instruction Manual



High Quality Products Global Recognizable Brand
Health Oxygen, Green life

Preface

Dear customer:

Thank you for your purchasing **TP-B1 oxygen concentrator**. We will be always with you to ensure a health-friendly atmosphere for your daily life and work. We appreciate your help if you tell us your opinions on the product and service.

Please read these manual carefully to understand quickly and thoroughly how to use your new concentrator. Look after this document so that you may consult it in future or pass it on to any future owner.

This document explains and stipulates the operating conditions and testing results of the performance properly, specifications, temperature and humidity of the oxygen concentrator.

- ◆Refurbishing brain activity
- ◆Energizing physical conditions
- ◆Rich oxygen generation for skin care
- ◆Relaxing sub-health status caused by fatigue
- ◆Reducing hazards of cigarettes and alcohol
- ◆Sterilizing and deodorizing

Environmentally
and health friendly product

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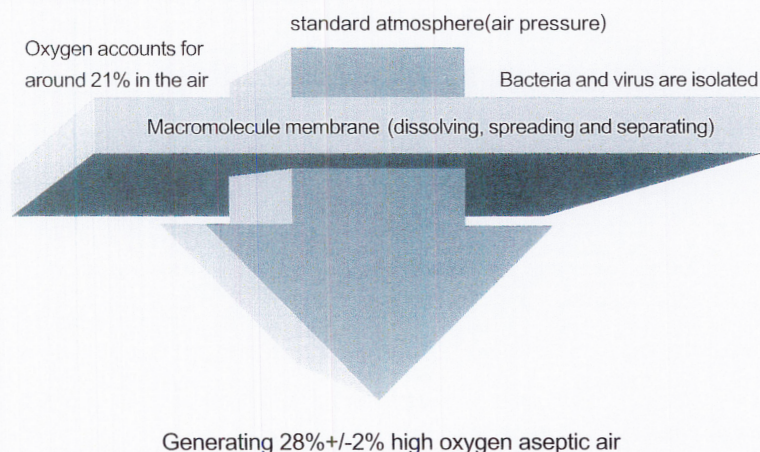
State-of-the-arts design and 10 functions

1. 28%+/-2% concentration, life standard clean rich oxygen supply
 2. Efficient oxygen supply
 3. Concise film button, simplified operating procedure
 4. Portable and light
 5. Energy efficient, Economical Consumption
 6. Convenient earphone breathing apparatus
 7. Low noise, mute motor, physical oxygen generation
 8. Safely broad-spectrum, oxygen concentration satisfying varied demands
 9. Ergonomic Design, harmonious airflow
 10. Standard parts: worldwide voltage adapter
- Optional parts: specialized chargeable battery and charger, suitable for traveling and household use.

---What can be better than it?

The latest membrane separation technology

As dissolving penetration rate of molecules in membrane is different, the technology can separate oxygen and nitrogen molecules from each other for generation of around 28%+/-2% concentration oxygen.



1. In cooperating the latest biological membrane separation method for rich oxygen generation based upon the theory of different dissolving penetration rate of molecules in membrane.
2. The appliance generates pure rich oxygen.
3. Macromolecule membrane can fully filtrate harmful substances in the air, such as dusts, virus and bacteria, and refresh the air with rich oxygen, environmentally and health friendly.

Completely physical rich oxygen supply, much safer, more environmental and health friendly

Special recommendation for 8 groups of potential consumers

Rich oxygen, Life benefits

Regular breathing rich Oxygen increases physical ability and life activity.

White-collar women: skin care, maintenance of skin nutrition and elasticity and reduction of sub-health status.

Aged: prolonging life, improving immunity, preventing disease, oxygen therapy

Pregnant women: beneficial to the women and helpful to fetus development

Businessman: relaxing physical and mental tension, improving physical ability, reducing sub-health status and improving work efficiency.

Students: improving remembrance, refreshing and reducing mental fatigue.

Workers: releasing fatigue, refreshing and increasing physical ability.

Patients: increasing the auxiliary treatment of Cardio-cerebral vascular diseases, diabetes and respiratory diseases.

Plateau tourism lovers: Releasing the symptoms of lacking of oxygen on plateau.

Mini oxygen plant resolves the oxygen supplement problem.

Features

1. Styled design, selected material, compact structure, simplified ear-phone shaped oxygen.
2. Mild airflow supplied for a harmonious atmosphere.
3. Advanced technology incorporated for precise oxygen concentration control to $28 \pm 2\%$ for rich oxygen achievement.
4. Simplified concise control system with intensive design under the control of only 1 knob.
5. International standard adapter (100-240v) safely withstands serious change of power pressure and frequency.
6. Furnished with Chargeable battery can be used at home, in a car and even the place without power supply.
7. Direct Currency and brushless motor ensuring quiet running and economical power Consumption. Vector frequency conversion bringing powerful driving.

Functions

1. Mechanical Principles

This machine incorporates physical mechanism to generate and supply rich oxygen of $28 \pm 2\%$ concentration by the means of vacuum pump and macromolecules.

2. Application

Ambient temperature: $5 \sim 40^\circ\text{C}$ Humidity: below $90\%\text{RH}$

3. Storage

Ambient temperature: $0 \sim 40^\circ\text{C}$ Humidity: below $80\%\text{RH}$

4. Control Button

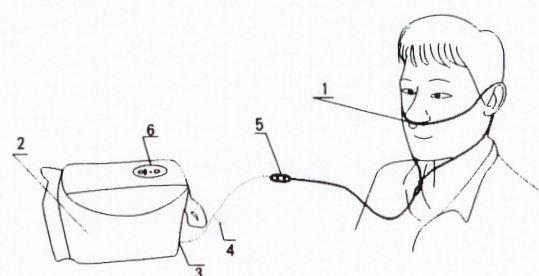
Caution: This appliance should be kept away from dusts and oil vapor. If the appliance is operated in an area where temperature and humidity values are beyond required degree, or altitude is high, oxygen concentration and airflow might be affected.

Safety Precaution

1. Do not stop the appliance by directly disconnecting the power supply.
2. Children or handicapped should be looked after while the appliance is in operation in order to avoid physical hazards.
3. Ensure that the area is well ventilated while the appliance is in operation.
4. Keep the fan and side air inlet clear from obstacles and clean the filter regularly depending on the usage frequency, but never be over 6 months.
5. Damaged electrical cable must be replaced by the wire designated or provided by authorized distributor or the manufacturer.
6. Prevent any liquid substance from entering the appliance. If this happens, cease the operating appliance and contact competent technicians for repair.
7. Do not tilt the appliance when the appliance is in operation to avoid collision between the compression pump and case, excessive noise and wobble.

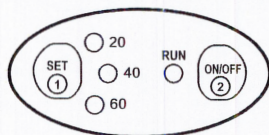
▲ The adapter and the chargeable battery are specialized for the appliance. Change to other specifications will result in uncertain operation or damage to generating unit.

PARTS



1. Oxygen breathing apparatus
2. Generating unit
3. Oxygen outlet
4. Oxygen hose
5. Capsule
6. Operating button

Operation guide



1 After unpacking, assemble the parts of holder frame and the generating unit.

2. Connect all the parts the holder frame to the oxygen outlet of the generating unit with the oxygen hose.

3. Connect the appliance with the power supply. There is no indication on the control panel as shown in the figure.

4. Press button 2 to initiate the appliance, the LBD indicator by digit 20 and air supply indicator goes on, and the appliance will keep operating for 20 minutes. Press button 1, the LBD indicator by digit 40 and air supply indicator goes on while the indicator by the digit 20 goes off, the appliance will keep operating for 40 minutes. If button 1 is pressed the third time, the LBD indicator by digit 60 and air supply indicator goes on while the indicator by digit 40 goes off, the appliance will keep operating for 60 minutes. If button 1 is pressed again, all digits light, the appliance will keep operating for 4 hours. If selected operating period expires, indicators by digits 20, 40 or 60 will go off and the operating of appliance will cease. In the process of time set up, all indicators by digits 20, 40 and 60 will go off if button 2 is pressed and the appliance will be turned off.

5. In the process of time set up, the front light will be kept on until the very end. All indicators and the front light will go off and the appliance ceases operation when button 2 is pressed.

Caution: It is strongly recommended that 40 minute status be chosen and the appliance be set operational every day.

Functions

1. The housing of the appliance is smooth and glossy and should be prevented from scratches by sharp edges.
2. For cleaning of the appliance, soft cloth dampened with water can be used. Never use corrosive or organic solvent. Otherwise the cleaned surface will lose luster.

3. When the generating unit finishes the operating, disconnect the power supply promptly.

4. Do not modify the appliance to avoid influencing the outlet and inlet of the air and resulting in negative effect to the appliance performance.

5. Only authorized technician can handle the interior piping system.

6. If the appliance does not work properly, check the appliance under the guide of Trouble Shooting. If the trouble shooting does not work contact the local retailer for technical resistance. If the appliance is beyond warranty coverage, cost fee will be charged for replacement parts and materials.

7. Water build up in the capsule should be immediately.

8. The filter of the generating unit should be cleaned regularly, usually once every 3 months. Remove the filter, then clean the filter with detergent and rinse the filter with clean water finally dry it and reinstall it.

Troubleshooting

1. Only in initial period, the generating unit and oxygen hose might produce slight odor.
2. If the appliance is not placed on solid place, excessive noise might be generated.
3. Tilt, upend the appliance, excessive noise and wobble might be generated.
4. The generating unit might be stopped power supply by adapter to protect the system in along time operation. The appliance will continue to operate in several minutes.
5. When the ambient temperature below 20°C, the appliance will automatically preheat, which will increase the outlet air flow and generate excessive noise. The state will disappear in several minutes.

Technical Information

- | | |
|---|----------------------------------|
| 1. Oxygen Concentration: 28%±2% | 6. Product Size: 230x110x160(mm) |
| 2. Airflow outlet: About 3L/min | 7. Noise: ≤48dB |
| 3. Oxygen Supply: Directly supply | 8. Net Weight(w/o adaptor): 2kg |
| 4. Rated Voltage: AC100V-240V / DC12V-16.8V | 9. Carton Size: 32cmx18cmx19cm |
| 5. Power Consumption: 32W | |

Oxygen and health

Oxygen accounts for the largest portion in the globe and about 21% in the air. However, due to increasingly serious air pollution, especially in some industrial cities, fresh air with sufficient content of oxygen is unlikely available. This situation has resulted in hypoxia which is one of major causes of many diseases.

1. Arterial PO₂ fall, a symbol of aging and sub-health

Age	Arterial PO ₂ (X±S...mmHg)
21-30	91.3±1.3
31-40	88.1±1.2
41-50	83.2±1.1
51-60	81.7±1.4

Arterial PO₂ fall is a symbol of aging and sub-health

Arterial PO₂ fall may cause dysfunctional symptom of brain, heart, liver and kidney, as well as sub-health and pathological changes.

2. Physical effect of Oxygen concentration Rich Oxygen vital to health

Rich oxygen vital to health

Environment	%	Effect and Result
	Over 90	Oxygen intoxication(long time), medical
	65-85	oxygen intoxication(long time) recovered after active physical exercise(short time)
	50-60	Maximized concentration for physical exercise (short time)
	36-50	Fatigue relief after light physical exercise (short time)
oxygen generator	approx. 30	Increase of physical ability and life energy
Grassland	22	Proper relaxation
Forest	21	Proper relaxation
Outdoor urban on average	20.9	Standard atmospheric concentration
Indoor urban	20.5	Basic value of air supply
Indoor urban(night)	20.2	
	19-20	Discomfort resulted by CO increase due to imperfect combustion
Patient ward	18.5	Headache long time
Sauna	18.0	Worst labor safety and health, danger to elderly
	15-16	Increased breathing count due to hypoxia
	13-15	Potential inducement fade away
	12.0	Short time danger
	Less than 7.0	Death

3. Rich Oxygen and health

• Rich oxygen for skin care

Tiresome work pressure makes women wan and sallow, and easy to get tired.

Regular breathing of rich Oxygen may accelerate blood circulation of skin and metabolism of skin tissue and, the more importantly, discharge of toxic substances and waste and supplement of water, resulting in healthier and elastic skin.

• Rich oxygen and ageing

During the period of senility, the pathological functions will deteriorate.

The oxygen delivery ability will become weak, resulting less absorption and inefficient utilization of oxygen. In such case the whole body will enter chronic hypoxia state with the following symptoms:

The cardiovascular system cell, oxygen therapy is only 2 liters per minute much lower than standard volume of 4 liters per minute; respiratory system. Decreased breathing function, alveolar residual volume of the people aged 60 doubles that of those aged 30; the center system function turbulence, resulting metastasis changes and blood and oxygen supply disturbance to brain and cardiac muscles and high blood pressure and atherosclerosis.

Rich oxygen breathing in long period can slow the ageing process and release weakness, tiresome status, chest oppression, head throb, suffocation and faintness. Especially when someone becomes raging and exciting, oxygen breathing may immediately release symptoms of angina, myocardial infarction, cerebral thrombosis and apoplexy.

• Rich oxygen and health of pregnant women and fetuses and newly born babies

Pregnant women need to absorb more nutrition and oxygen to satisfy the requirements of metabolisms and as a result, burden of heart and lungs is increased. This may result in shortage of blood and oxygen supply. Medical research achievements indicate that intrauterine oxygen status plays a significant role in fetus IQ development. From this point of view, oxygen breathing during pregnancy period is beneficial to both adult and baby.

• Rich oxygen for health of brainworkers

Brain consumes 20~30% of oxygen the whole body requires. Excessive brainwork and tense nerves will increase oxygen consumption.

The essence and symptom of sub-health status is hypoxia. Longtime brain work will result in fatigue, faintness, dizziness and headache due to hypoxia.

Oxygen breathing has been widely experienced by office workers in developed countries as rich oxygen may increase the energy, accelerate metastasis, slow ageing process and improve physical condition.

• Rich oxygen and student IQ

In an experiment, some students in the same class were divided into two groups. One group of students were required for oxygen breathing and another were not. After a certain period, an examination was conducted for the two groups of student the group of students of oxygen breathing scored 486 points on average and the other group of students scored 452.

• Rich oxygen and workers

Overload physical work will cause hypoxia of organs and buildup of lactic acid in muscles. In such case, soreness and adynamia (due to excessive fatigue after active physical exercise or labor) maybe felt. In medical theory, this symptoms called "Muscle Hungry".

Oxygen breathing may help decrease lactic acid buildup, improve hypoxia status, eliminate fatigue, accelerate physical recovery and improve work efficiency.