



OXY-90 OXYGEN CONCENTRATOR

# SAFETY & INSTRUCTION MANUAL





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*The Natural Ozone Oxygen Concentrator is designed to be used on a prescriptive basis by patients requiring supplemental oxygen. It supplies a high concentration of oxygen and is used with a nasal cannula to channel oxygen from the concentrator to the patient. It should only be used as directed by your physician.*

*ATTENTION! Incorrect use of oxygen can be harmful.*

## SAFETY PRECAUTIONS

In case of power outage or malfunction of the oxygen concentrator, an alternate source of supplemental oxygen (such as oxygen cylinder or oxygen bag) should be prepared for the user in urgent need of oxygen.

Additional monitoring or attention may be required for patients

using this device who are unable to hear or see alarms or communicate discomfort. If the patient shows any signs of discomfort, a physician should be consulted immediately.

**Note:** This machine does is not suitable for life support or life extension.

## PRE-INSTALLATION

Check parcel on delivery for signs of damage during transport.

After opening the package, please check whether the machine is in good condition, and refer to the accessory list to ensure that all of the items are included. If there is any missing item, please contact Natural Ozone for replacement. If there is

damage to the outside of the parcel, contact the delivery company and register a complaint.

**Note:** The unit housing should only be opened by a licensed professional.

## INSTALLATION

Unit must always be operated in upright position.

Please use standard electrical socket. If the local power supply has unstable voltage, or is outside of the specified range of  $220\pm 15$  volt, please connect a voltage regulator before using the machine.

The machine should be located in a well-ventilated space, avoid direct sunlight. The distance between the machine and the wall

or other objects should be no less than 10cm.

Never place any objects on the machine while in use.

There should not be any obstruction around the air vents on the back and bottom of the machine. Blocked air inlet or outlet may cause overheating, reduced oxygen supply or damage to the unit.

USAGE

Oxygen is a combustible gas, so do not smoke nearby and keep away from any other possible source of ignition while using the machine.

Do not switch on & off frequently. You can restart it after you have switched it off for 3~5 minutes.

Avoid using oil or grease-like material on any part of the machine as it may contaminate the oxygen and/or cause fire.

PRODUCT FEATURES

The product is designed according to the standards of home appliance, for the use of supplemental oxygen.

**Health function:** The use of supplemental oxygen is indicated in a number of different conditions. Always consult your physician to determine the proper usage regime. Improper use of supplemental oxygen can be harmful. Natural Ozone does not offer health advice.

**Intelligent control:** LCD display screen, easy use and operate including timing function.

**Overheating protection:** Unit will automatically shut down if the compressor temperature exceeds the set limit.

**Anion (negative ion) function:** (Optional) Anions are negatively charged particles which are released into the atmosphere through the vent at the back of the machine. Studies have shown health benefits from the use of negative ion generators including decreasing pollen, bacteria and other pollutants in the air. While the anion function is activated, the negative ions will be automatically generated and released while your machine is running.

STANDARD OPERATING CONDITIONS

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▶ Environmental temperature:	0°C - 40°C
▶ Relative humidity:	<80%
▶ Atmospheric pressure range:	86kpa – 106kpa

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If the machine has been subject to conditions outside of the specified range, please leave within standard operating conditions for at least 4 hours before use.

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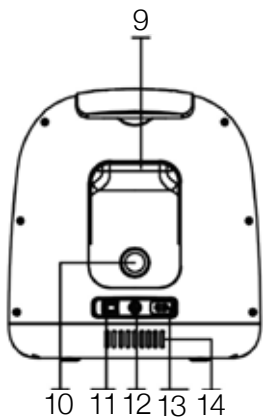
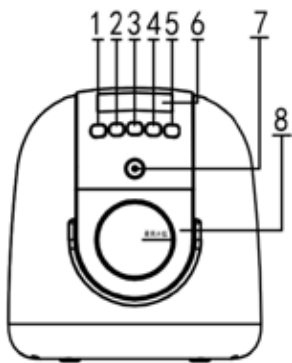
## KEY TECHNICAL SPECIFICATIONS

▶ Product name:	Oxygen Concentrator
▶ Model:	OXY-90
▶ Oxygen generation method:	Pressure Swing Adsorption (PSA)
▶ Rated voltage:	AC220±15V, 50±1Hz
▶ Input power:	110W
▶ Rated Current:	0.8A
▶ Oxygen flow rate:	0-6L/min adjustable
▶ Oxygen concentration:	30%, 60%, 90% (±3%) adjustable
▶ Velocity of flow:	1L/min, 3L/min, 6L/min adjustable (normal atmospheric temperature, 1.0MPa)
▶ Output pressure:	0.02~0.03MPa
▶ Carbon dioxide:	qualified according to test
▶ Carbon monoxide:	qualified according to test
▶ PH value:	qualified according to test
▶ Morphological identification:	odorless, colorless gas, combustion-supportive
▶ Operating noise:	about 45dB(A)
▶ Classification:	II class
▶ Size:	325mm x 180mm x 350mm
▶ Net weight:	6.0kg
▶ Display control:	LCD light display, intelligent chip control, infrared remote control



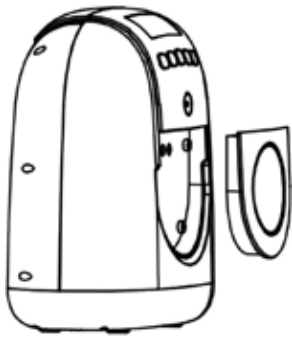
# OXY-90 OPERATING GUIDE

## BEFORE YOU START



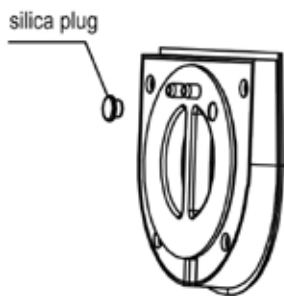
## MAIN OVERVIEW

1. On/off switch
2. Mode
3. Ionise
4. Timing +
5. Timing -
6. LED display
7. Oxygen outlet
8. Water tank
9. Handle
10. Filter
11. Power switch
12. Fuse
13. Power socket
14. Air/anion anion outlet



## FILL WATER TANK

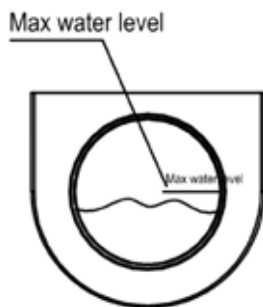
Grasp both sides of the water tank (8) with two fingers and pull out. Water should be changed every day of use.



Open the silicon plug on the back and add pure water (distilled or cooled boiled water) up to the max water level as shown.

Replace silicon plug then reinstall the water tank.

When replacing the water tank, ensure that the plastic pipes fit snugly into the O-ring seals and that the tank is held in place with the magnets on the unit.

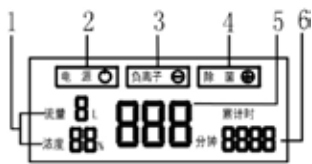






## CONNECTION OF OXYGEN TUBE

Connect one end of the oxygen tube to the oxygen outlet and the other to the delivery device, eg cannula



## LED DISPLAY DIAGRAM

- 1) Flow and density indicator
- 2) Power indicator
- 3) Anion (negative ion) function indicator
- 4) Warning indicator light
- 5) Timing display
- 6) Cumulative time display

## OXY-90 OPERATING GUIDE

# HOW TO OPERATE

### POWERING UP

Switch on the unit with the power switch on the back of the housing. The machine will emit a beeping sound. LED display will light up for three seconds and the machine enters standby mode. Power indicator will continue flashing while the machine is in standby mode.

### SWITCHING ON

Press the on/off button on the front of the unit and the machine will commence operation. Various indicator lights will show as well as the blue backlight on the water tank. The machine will emit a gentle whirring sound and oxygen will flow from the oxygen outlet, while nitrogen will be emitted through the vent at the back. The machine will run continuously by default.

### TIME+

Once the machine has been switched on, it will run continuously by default. Press the Time + button once and the time setting will display 15 minutes. Each time you press the time+ button, the running time will increase in increments of 15 minutes until the maximum of 180 minutes is reached. Use the time setting as prescribed by your physician.

### TIME-

Once the machine has been switched on, it will run continuously by default. Press the Time – button once and the time setting will go to 180 minutes. Each time you press the button, the running time will be reduced by 15 minutes. Use the time setting as prescribed by your physician.

## MODE ADJUSTMENT BUTTON

Use the button to toggle between the available settings to adjust the density and flow rate of the oxygen as prescribed by your physician. Please refer to the chart below. The flow rate and oxygen density will be displayed on the LED screen at the left hand side of the display.

OXYGEN CONCENTRATION VS FLOW RATE CHART\*

Litres/minute	2	3	4	5	6-7
Concentration	90%	60%	50%	40%	30%

\*Note 3% variation

## IONISE

The Natural Ozone OXY-90 oxygen concentrator has an additional feature known as a *negative ion generator*. Negative ions are charged particles (anions) which are released into the environment through the vent at the back of the machine. The anions do not get mixed with the oxygen which flows through the oxygen outlet. Negative ions have been shown to have beneficial effects such as reducing pollution, pollen and pathogens in the environment. This is an optional benefit that you may choose to select while you are using the oxygen concentrator.

## WIRELESS REMOTE CONTROL

The buttons on the wireless remote control function the same as those on the unit itself.  
Requires 2 X AA batteries (not included).

## ELECTROMAGNETIC ENVIRONMENT

In order to avoid magnetic interference, the OXY-90 should be operated at least 30 cm distant from any other appliance.

## OXY-90 OPERATING GUIDE

# CARE AND MAINTENANCE



## CLEANING

The housing of the unit should be cleaned at least once per month. Use a soft damp cloth with a mild disinfectant to wipe down the outer surface. Care must be taken not to allow entry of liquids into any of the openings in the unit including air vents.

## CLEAN THE WATER TANK

In order to keep the tank clean, it should be filled with cold boiled or distilled water only and replaced every day. The tank is a separate part, which should be replaced every year. After the water tank is filled with pure water, remember to replace the rubber plug and wipe the outside surface to ensure that it is dry.

## OXYGEN TUBE AND INHALER

These must be washed after every use. Tubes and cannulas must be replaced at least once per year.

## LONG TERM STORAGE

If you are not intending to use your oxygen concentrator for a long period of time, please follow these instructions:

- 1) Remove water tank, drain and dry then replace
- 2) Unplug power chord
- 3) Store tubes and cannulas in a clean, dry environment, protected from light and extreme temperature

## RECOMMISSIONING AFTER LONG TERM STORAGE

- 1) Check for signs of damage especially to the electrical cable
- 2) Clean oxygen tube and inhaling devices
- 3) Clean water tank

## OXY-90 OPERATING GUIDE

# TROUBLE SHOOTING GUIDE

FAULT	POSSIBLE CAUSES	SUGGESTED SOLUTION
▶ Smell of gas	When new, the unit will smell of plastic	This smell is normal, non-toxic and will fade naturally with use
	Dirty water tank	Use only purified water and clean tank thoroughly at least every week
▶ Water seeping from oxygen outlet	Water tank is too full	Check water tank level and ensure that it does not exceed the maximum level indicator
▶ Machine emits short term squeaking sound	This is a normal operating sound caused by the nitrogen absorption	No action necessary, machine is working as per specification
▶ Machine appears to be operating correctly but there is little or no oxygen flow	Air flow is set too low	Adjust airflow according to instructions
	Oxygen tube is kinked or blocked	Check oxygen tube for kinks or blockages
	Tubing inside the unit has become dislodged	Turn off the power and take the unit to a licensed professional for service
▶ Oxygen is bubbling through the water tank but not exiting the tube	Silicon stopper on water tank is not properly fitted	Remove oxygen tank and check to ensure that the silicon plug is firmly in place forming a tight seal
▶ After switching on, the indicator lights work normally but machine is not humming or producing oxygen	Temperature is too high	The compressor is fitted with automatic thermal protection. Allow unit to cool and switch back on
	Internal fault	Disconnect electricity and bring unit to a licensed repair professional







