# **OX-B Series**

# **OXYGEN CONCENTRATOR**



OX-10B/5B Oxygen Concentrator
Instruction Guide

VERSION NO: VO-SG Issued on 2021.10.21

WARNING-Read instruction guide before operating this equipment.

DANGER---NO SMOKING

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INDICATIONS FOR USE — The OX-B series Oxygen Concentrator is intended for use as an oxygen concentrator to provide supplemental low flow oxygen therapy in the home, nursing homes , patient care facilities, etc.

# **A** WARNING

Under certain circumstances, oxygen therapy can be hazardous. Seeking medical advice before using an oxygen concentrator is advisable.

**Physician Information** 

•	
Physician Name:	
Prescription Information	
Name:	
Oxygen liters per minute	
at rest:	during activity :
Other:	
Oxygen use per day	
Hours:	Minutes:
Comments:	
	Serial Number:
(check one)	
□10-Liter □5-Liter	
OXTM Provider Information	
Service Person:	
This instruction guide was reviewed	ed with me and I have been instructed on the safe use and care of the
OX-B series Oxygen Concentrato	or.
Cianatura	Data:

#### IMPORTANT SAFEGUARDS

A Read this entire guide before using your OX-B series oxygen concentrator .Important information are highlighted by these terms throughout this guide:

**DANGER** Urgent safety information for hazards that will cause serious injury or death. **WARNING** Important safety information for hazards that might cause serious injury.

CAUTION Information for preventing damage to the product. **NOTE** Information which you should pay special attention.

Important safeguards are indicated throughout this guide; pay special attention to all safety Information.



DANGER-NO SMOKING

SAVE THESE INSTRUCTIONS.

#### INTRODUCTION

This instruction guide will acquaint you with the OX-B series oxygen concentrator. Make sure that you read and understand this guide before operating your unit Important safeguards are indicated throughout this guide ;pay special attention to all safety information .Contact your OXTM provider if you have any questions.



#### WARNING

For your safety, the oxygen concentrator must be used according to the prescription determined by your physician.



#### **DANGER**

Oxygen causes rapid burning. Do not smoke while your oxygen concentrator is operating, or when you are near a person utilizing oxygen therapy. Do not use within 5 feet (1.6m) of hot ,sparking objects or naked sources of flame.

#### WHY YOUR PHYSICIAN PRESCRIBED SUPPLEMENTAL OXYGEN

Today, many people suffer from heart, Lung, and other respiratory diseases .Many of these people can benefit from supplemental oxygen therapy. Your body requires a steady supply of oxygen to function properly. Your physician prescribed supplemental oxygen for you because you are not getting enough oxygen from room air alone .Supplemental oxygen will increase the amount of oxygen that your body receives.

Supplemental oxygen is not addictive . Your physician prescribed a specific oxygen flow to improve symptoms such as headaches, drowsiness, confusion, fatigue, or increased irritability. If these symptoms persist after you begin your supplemental oxygen program, consult your physician.

#### HOW YOUR OX-B series OXYGEN CONCENTRATOR WORKS

Oxygen concentrators are the most reliable, efficient, and convenient source of supplemental oxygen available today, the oxygen concentrator is electrically operated. The unit separates oxygen from room air

which allows high-purity supplemental oxygen to be delivered to you through the oxygen outlet, although the concentrator filters the oxygen in a room, it will not affect the normal amount of oxygen in your room.

## IMPORTANT PARTS OF YOUR CONCENTRATOR

Please take time to familiarize yourself with your OX-B series oxygen concentrator before operating.

Before using this product, make sure you have the following items:

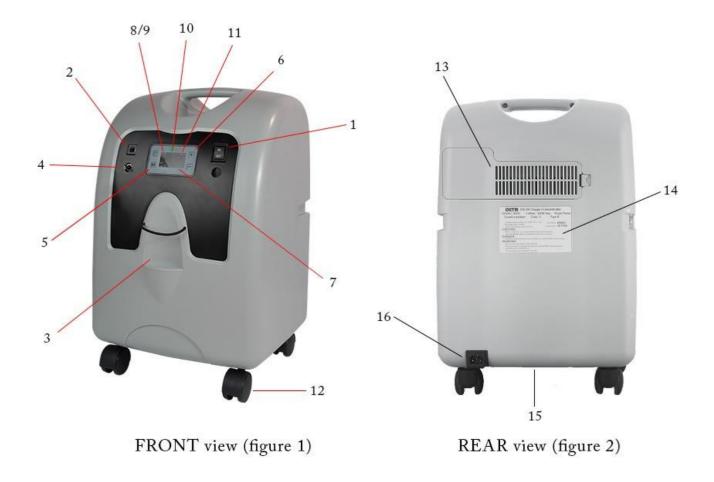
- 1 User manual.
- 1 Oxygen concentrator set.
- 1 Oxygen Outlet

#### Front View (Figure 1)

- 1. Power Switch
  - I =ON
  - O=OFF
- 2. Circuit breaker (selected units) resets the unit after electrical overload shutdown.
- 3. Humidifier Holder
- 4. Oxygen outlet—oxygen is dispersed through this port
- 5. Flow meter control button " M " increase flow / reduce flow  $\cdot$  0.5 LPM /per scale.
- 6. Timing setting " + " increase / " " reduce · 30 min /per step
- 7. Monitor-indicate the condition of oxygen purity status and hour meter
- 8. Green Power light—illuminates when your concentrator is operating
- 9. Normal Oxygen (green) light-(the LED display normal oxygen)/optional
- 10. Low Oxygen (yellow) light-(the LED display low oxygen) display low oxygen output concentration 82%+/-3%/ optional
- 11. Red Service Required light—when illuminated contact your OXTM provider
- 12. castor

#### Back View (Figure 2)

- 13. Air filter—prevents dirt, dust, and lint from entering your unit
- 14. Product specification label.
- 15. Exhaust
- 16. Power cord and /or IEC power connector



# SETTING UP YOUR OXYGEN CONCENTRATOR

1. Position your unit near an electrical outlet in the room where you spend most of your time.

#### **A** DANGER

Keep the oxygen concentrator at least 5 feet (1.6 m) from hot, sparking objects or naked sources of flame.

**NOTE**—Do not connect to an electrical outlet controlled by a wall switch. NO other appliances should be plugged into the wall outlet

2. Position your unit at least 6 inches (16 cm) from walls, draperies, or any other objects that might prevent the proper flow of air in and out of your oxygen concentrator. The Oxygen concentrator should be located so as to avoid pollutants or fumes.

#### BEFORE OPERATING YOUR OXYGEN CONCENTRATOR

- 1. Before operating your unit always checks to be sure the air filter (located on the back of your unit) is existed .Proper replace of this filter is discussed in the Caring for Your Concentrator section on page 9.
- 2. Attach the appropriate oxygen accessories to the oxygen outlet.

#### Oxygen Tubing Connection:

- a. Attach the oxygen tubing directly to the connector. (Figure 3)
- b. Press "M", adjust the flow rage(A) from 0.5-5.0LPM. Press " + "/" "(B) to setting the timer for operate period.



Figure 3

#### Oxygen Tubing Connection with Humidification:

- a. If your physician has prescribed an oxygen humidifier as part of therapy,
- c. Follow these steps:
- d. Fill the humidifier bottle with distilled water. Do not overfill.
- e. Attach the oxygen tubing directly to the humidifier bottle outlet fitting.(Figure 4)



Figure 4

Your physician has prescribed either a nasal cannula, catheter, or face mask, in most cases, they are already attached to the oxygen tubing .If not, follow the manufacturer's instructions for attachment.

Remove the power cord completely from the line cord strap, Make sure the power switch is in the 'Off' position, and insert the plug into the wall outlet; the unit is double insulated to guard against electric shock.

## **▲** WARNING

Improper use of the power cord and plugs can cause a burn, fire or other electric shock hazards .Do not use the unit if the power cord is damaged

#### **OPERATING YOUR OX-10B/5B CONCENTRATOR**

# **A** DANGER

Oxygen causes rapid burning. Do not smoke while your oxygen concentrator is operating, or when you are near a person utilizing oxygen therapy. Keep the oxygen concentrator at Least 5 feet (1.6 m) from hot, sparking objects or naked sources of flame.

1. Press the power switch to the 'On' position, when the unit is turned on, the Power light will illuminate, and the patient alert system – Service Required light and audible signal — will briefly alarm.

**NOTE**—If the Service Required light illuminates and the audible signal alarms but the unit is not operating, there is no power to the unit, Refer to the Minor Troubleshooting chart not page 8 and contact your OXTM provider if necessary.

**NOTE**—If an audible low-frequency vibration sound is detected, the unit is not operating properly. Refer to the Minor Troubleshooting chart on page 8, and contact your OXTM provider if necessary.

2. Check the flow meter to make sure that the flow meter ball is centered on the line next to the prescribed number of your flow rate.

**CAUTION**—It is very important to follow your oxygen prescription. Do not increase or decrease the flow of oxygen-consult your physician.

**NOTE**—Your OXTM provider may have preset the flow meter so that it can not be adjusted.

**NOTE**—If the flow meter knob is turned clockwise, the flow decreases (and eventually will shut off the oxygen flow). If the knob is turned counterclockwise, the flow increases.

# **RESERVE OXYGEN SYSTEM**

As a precaution, your OXTM provider may supply you with a reserve oxygen system. If your unit loses electrical power or fails to operate correctly, the patient Alert System will sound to signal you to switch to your reserve oxygen system (if provided )and contact your OXTM provider.

## CARING AND PERIODIC MAINTENANCE FOR YOUR UNIT

**Not**—Use no lubricants, oils or grease.



Before attempting any cleaning procedures, turn the unit 'off.'

#### Oxygen Humidifier (reusable bottles)

If your physician has prescribed humidification, clean your humidifier bottle daily. Follow the instructions Supplied by the manufacturer, If no cleaning instructions were supplied, follow these steps

- 1. Wash the humidifier in a solution of hot water and dishwashing detergent.
- 2. Soak the humidifier in a solution of one part white vinegar to three parts hot water for 30 minutes. This solution acts as a germicidal agent.
  - 3. Rinse thoroughly with warm tap water and refill with distilled water for use. Do not overfill.

#### Cannula Mask and Tubing

Clean and replace the cannula, mask, and tubing as instructed by your OXTM provider.

## Air Filter and Oxygen Outlet Connector

The connector should not be cleaned at least once a week. To clean, follow these steps:

- 1. Remove the oxygen outlet connector (if used ).
- 2. Wash in a solution of warm water and dishwashing detergent.
- 3. Rinse thoroughly with warm tap water and towel dry .The filter should be completely dry before reinstalling.

Air filter need to be replaced after device operates each 3000 hours. Air filter is disposable after used. Not replace the air filter regularly will affect the performance of concentration.

**CAUTION**—To prevent product damage, do not attempt to operate the unit without the air filter or while the filter is still damp.

**Exterior Cabinet** 



To avoid electric shock, do not remove the concentrator cabinet. The cabinet should only be removed by a qualified OXTM technician. Do not apply liquid directly to the cabinet or utilize any petroleum-based solvents or cleaning agents.

Clean the concentrator exterior cabinet by using a damp cloth or sponge with a mild house-hold cleaner and wipe it dry.

# Periodic Maintenance for your unit

- 1. Clean the air filter at least once a week. The steps of cleaning see the Air Filter and Oxygen Outlet Connector.
- 2. Change the felt of the Inlet Pre-Filter at least once half a year. Follow those steps:

  Open the Important Safeguard pull out the Inlet Pre-Filter, Pull out the old felts from the Inlet Pre-Filter (two sides). Then insert the new felts to the Inlet Pre-Filter each side, insert the Inlet Pre-Filter and close the Important Safeguard.
- 3. Change the Bacterial Filter at least once a year. You can not change this by yourself, you must contact your OXTM Medical provider change this for you.

#### Accessories

The accessories below are approved for use with OX-10B/5B Oxygen Concentrators:

Object/part No.	Type/model	Technical data
Bubble Humidifier(200 ml Capacity)	REF7100	ABS,PP
Cannula (disposable)	3583	PVC
Cannula w/ 2.1m(7 ft) Oxygen Tubing (disposable)	3031	PVC
Oxygen Tubing (disposable)	30302	PVC

- **NOTE-** The use of certain humidifiers and accessories not specified above may impair the oxygen concentrator's performance.
- **NOTE-** If the 'Service Required' light illuminates and the audible signal alarms but the unit is not operating, there is no power to the unit. Refer to the Minor Troubleshooting chart on page 8 and contact your OXTM Medical provider.
- **NOTE-** from open to oxygen to reach the required performance required time should be within 5 minutes.

The OX-B series Device is a device within your concentrator that monitors the oxygen produced by your unit. When the units is turned 'ON,' all lights (Power/ Normal Oxygen, Low Oxygen, and Service Required) on the front panel will illuminate briefly. After few seconds, only the 'Power' and 'Normal Oxygen' lights will remain lit.

The lights on the front panel are defined as follows:

- Green LED Acceptable oxygen concentration ≥82%.
- Yellow LED Below an acceptable oxygen concentration 82%~70%.

If the oxygen purity drop below the acceptable level, the Normal Oxygen light ( Green LED) will shut off and the Low Oxygen light ( Yellow LED ) will illuminate. Switch to your reserve oxygen system. Refer to the Troubleshooting section in this guide on page 8 and contact your OXTM provider.

As an added safety feature should the oxygen purity continue to drop, an intermittent audible signal will alarm. Please contact your OXTM provider immediately. Do not attempt any other maintenance.

# **MINOR TROUBLESHOOTING**

Symptom	Possible Cause	Remedy
A. Unit does not operate.	Power cord not properly inserted into wall outlet.	Check power connection at the wall outlet. On 230 volt units, check the back of the unit.
Power light is off when the power switch is 'on .' Audible alarm is pulsing and Service	2. No power at wall outlet.	Check your home circuit breaker and reset if necessary. Use a different wall outlet if the situation occurs again.
Required light is flashing.	Oxygen concentrator circuit breaker activated (selected units).	Press the concentrator circuit breaker button (if equipped) located below the power switch. Use a different wall outlet if the situation occurs again.
	1. Air filter is blocked.	Check the air filter. If the filter is dirty, following the instructions on page 7.
	2. Exhaust is blocked.	Check the exhaust area; make sure there is nothing restricting the unit exhaust.
B. Unit operates; the Power light is on when the Power switch is 'On'. Red Service Required light is illuminated. Audible alarm may be sounding.	3. Blocked or defective cannula, catheter, face mask or oxygen tubing.	Detach cannula, catheter, or face mask .lf proper flow is restored, clean or replace if necessary. Disconnect the oxygen tubing at the oxygen outlet. If proper flow is restored, check oxygen tubing for obstructions or kinks. Replace if necessary
	4. Blocked or defective humidifier bottle.	Detach the humidifier from the oxygen outlet .lf proper flow is obtained, clean or replace humidifier.
	5. Flow meter set too low.	Set flow meter to prescribed flow rate. If the above remedies do not work, contact your OXTm provider
C. Unit operates the power light is on when power switch is 'on ', audible low-frequency vibration sound is detected.		Turn your unit 'off', Switch to your reserve oxygen system, and contact your OXTm provider immediately.
D. If any other problems occur with your oxygen concentrator.		Turn your unit 'Off' .Switch to your reserve oxygen system, and contact your OXTm provider immediately.
E. Both the green Normal Oxygen and the yellow Low Oxygen lights are either on or off.	O.C.I malfunction	Contact your OXTm provider.
F. Yellow Low Oxygen light is on or the yellow low	1. Flow meter is not properly yet.	Ensure the flow meter is properly set to the prescribed.
Oxygen light is on and the intermittent audible Signal is sounding.	2. Air filter is blocked.	Check the air filter. If the filter is dirty, wash it following the cleaning instructions on page 7.
	3. Exhaust is blocked.	Check the exhaust area: make sure there is nothing restricting the unit exhaust.
G. Red Service Required light is on and an intermittent audible signal is sounding.	1. Flow meter is not properly yet.	Ensure the flow meter is properly set to the prescribed.
	2. Air filter is blocked.	Check the air filter. If the filter is dirty, wash it following the cleaning instructions on page 7.
	3. Exhaust is blocked.	Check the exhaust area: make sure there is nothing restricting the unit exhaust. If the above remedies do not work, contact your OXTm provider.

# **SPECIFICATIONS**

No.	Item	Rating
1.	Delivery Rate (Lower delivery rates available for	2 to10 LPM(OX-10B)
	low application)	0.5 to 5 LPM(OX-5B)
2.	Outlet Pressure	8.5-13 psi ( 68.5-90 kpa )
3.	Electrical Rating	230 V, 50 Hz, 3.4A (Max.)OX-10B
		1.4A (Max.)OX-5B
4.	Oxygen Percentage	2~9 LPM 93%±3%,10 LPM 90%±3%(OX-10B)
		0.5~5 LPM 93%±3%,(OX-5B)
5.	Average oxygen concentration	at 2 l/min: 93%±3%
6.	Operating Environment Range	Temperature 10°C to 40°C,
		Humidity 15% to 95%
		Atmospheric pressure 50~106 kpa (7.3~15.4 psi)
7.	Weight	18.9kg(OX-10B)/ 14.9kg(OX-5B)
8.	Sound Level ( ISO 8359:1996 from front )	≤55dbA (OX-10B) / ≤43dbA (OX-5B)
9.	Dimensions	342mm(L) x368mm(W) x572mm(H)
10.	Operating System	Time Cycle / Pressure Swing
11.	Storage Conditions	Temperature -40°C to 70°C
		Humidity 10% t0 100%
		Atmospheric pressure 50~106 kpa (7.3~15.4 psi)
12.	Equipment Class and Type	The type of protect against electric shock: Class II
		The degree of protect against electric shock: TYPE B Type B
		Applied part
13.	Pressure Relief Valve	276 kPa±34.5 kPa
14.	Lifetime	3 Years
15.	Warranty Period limit	1 Year ( OX-10B) / 3 Years ( OX-5B)

# **SYMBOL**

	<u>,                                      </u>	
$\wedge$	General warning, caution, risk of danger  Please read the instructions carefully before operating the product.	
<b>†</b>	Type B applied part	
	Class II equipment	
SN	Manufacture's serial number	
EC REP	Authorized representative in the European community	
M	Date of manufacture	
***	Manufacture	
<b>\(\bar{\pi}\)</b>	Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE Directive) after over the valid term within 3 years, the machine should be treated on local law or regulation requirement. To avoid hurt users and pollute environment.	
<b>(</b> € <sub>2460</sub>	The equipment bears CE mark CE0434 indicating its conformity with the provision of Council Directive 93/42/EEC concerning medical devices, and fulfills the essential requirement of Annex I of this directive.	
Ţ	FRAGILE  Contents of the transport package are fragile therefore it shall be handled with care.	
<u>11</u>	THIS WAY UP Indicates correct upright position of the transport package.	
Ť	KEEP AWAY FROM RAIN  Transport package shall be kept away from rain.	
(((•)))	Non-ionizing electromagnetic radiation	

## **ELECTROMAGNETIC IMMUNITY**

#### Guidance and manufacturer's declaration - electromagnetic immunity

The OX-10B/5B OXYGEN CONCENTRATOR is intended for use in the electromagnetic environment specified below. The customer or the user of the OX-10B/5B OXYGEN CONCENTRATOR should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance	Electromagnetic environment-guidance
		level	
			Portable and mobile RF communications equipment should be use no closer to any part of the OX-10B/5B OXYGEN CONCENTRATOR including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  Recommended separation distance
Conducted RF	3 Vrms	3 V	$d = \left[\frac{3.5}{V_1}\right] \sqrt{P}$
IEC 61000-4-6	150 kHz to 80 MHz		$d = \left[\frac{3.5}{E_1}\right] \sqrt{P}  80 \text{ MHz to } 800 \text{ MHz}$
Conducted RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = \left[\frac{7}{E_1}\right] \sqrt{P}$ 800 MHz to 2.5 GHz
			Where $p$ is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and $d$ is the recommended separation distance in metres (m).
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup>
			Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.

<sup>a</sup> Field strengths 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 OX-10B/5B OXYGEN CONCENTRATOR is used exceeds the applicable RF compliance level above, the OX-10B/5B OXYGEN CONCENTRATOR should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the OX-10B/5B OXYGEN CONCENTRATOR.

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

# **DECLARATION OF CONFORMITY**



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