



Oxygen Concentrator



**Model 6323OM-7
Model 6323-7
INSTRUCTION MANUAL**

P/N 3430 Rev D



Table of Contents

Warnings and Cautions	3
Introduction.....	4
Important Safety Instructions.....	4
Oxygen Concentrator Information	6
Using Oxygen Concentrators	6
Recommended Guidelines for Optimum Performance	6
The Proper Location.....	7
Before Operating Your Oxygen Concentrator	7
Operating Your Oxygen Concentrator.....	8
Installation Instructions.....	9
Select a Location.....	9
Inspect Inlet Air Filter.....	9
ON/OFF Button	9
Warm-up Period.....	9
Flow Rate Adjustment	9
Reset Button.....	9
Operating Conditions	10
Control Panel Display	10
Usage.....	10
Non-Usage	10
Enhanced Power Management Feature.....	11
Maintenance	12
Trouble Shooting Guide.....	13
Technical Data	14
Electromagnetic Compatibility	15
Disposal of Equipment and Accessories.....	15



Warnings and Cautions

Warning and Caution notices used in this manual apply to hazards or unsafe practices that could result in personal injury or property damage.

Federal law (U.S.A.) restricts this device to sale by or on the order of a physician.



"Read Instruction Manual" *Do Not* operate this oxygen concentrator without first reading and understanding this manual. If you are unable to understand the warnings and instructions, contact your local SeQual dealer or authorized service representative before attempting to use this oxygen concentrator.



"Caution or Attention" In certain circumstances, oxygen therapy can be hazardous, therefore, it is advisable to seek medical advice before using the oxygen concentrator. *Do Not* deviate from prescribed flow rates. Adjust the flowmeter only to your prescribed flow rate, unless otherwise instructed by your physician.



Warning: "No Smoking or Naked Flames" The use of oxygen therapy requires that special care be taken to reduce the risk of fire. Material that burns in air and even some material that will not burn in air are easily ignited and burn rapidly in high concentrations of oxygen. For safety concerns, all possible sources of ignition must be kept away from the oxygen concentrator and preferably out of the room in which it is being used. Smoking in the proximity of an operating oxygen concentrator is dangerous, and can permanently damage the device and void the warranty.



"Use No Oil or Grease" A spontaneous and violent ignition may occur if oil, grease or other petroleum substances come into contact with oxygen under pressure. Keep these substances away from the oxygen concentrator, tubing and connections and any other oxygen source. *Do Not* use any petroleum based or other lubricants unless recommended by SeQual Technologies Inc.

- Keep oxygen concentrator and cord away from hot surfaces. *Do Not* use the oxygen concentrator if it has a damaged cord or plug; contact qualified service personnel for examination and repair.
- Air intake of the oxygen concentrator should be located in a well-ventilated area.
- Oxygen concentrator should be located so as to avoid pollutants and fumes.
- If oxygen concentrator has been dropped, damaged or exposed to water, contact qualified service personnel for examination or repair.
- *Do Not* drop or insert any object into any opening.
- *Do Not* block the air opening of the oxygen concentrator or place it on a soft surface, such as a bed or couch, where the bottom air opening may become blocked.
- *Do Not* cover unit with a blanket, towel, quilt, etc.
- *Do Not* place objects (pillow, blanket) under unit. Maintain at least ½ inch clearance under unit.
- *Do Not* overfill the humidifier, if used. Fill with water *only* to the level shown by the manufacturer.
- **Warning: *Do Not*** remove the cover. Cover should only be removed by qualified service personnel.



Introduction

Your physician has prescribed supplemental oxygen as part of a treatment plan. Long-term oxygen therapy is now widely accepted as the standard treatment for chronic hypoxia caused by chronic obstructive pulmonary disease. Oxygen therapy has become more versatile in recent years due to the development of oxygen concentrators. The new devices make it easier for physicians to select a mode of oxygen therapy that suits the patient's lifestyle.

An oxygen concentrator has been prescribed to provide you with a source for supplemental oxygen. SeQual's Integra Oxygen Concentrator is an electronically operated oxygen concentrator that separates oxygen from room air. It does not remove oxygen from a room any more than by simply breathing the same room air. You breathe the added oxygen through nasal prongs of a cannula (small soft plastic tubes that fit just inside your nostrils).

Your physician has prescribed a specific oxygen flow rate setting to meet your individual needs. This flow rate is determined by the amount of oxygen needed. ***Recommended oxygen flow rates should be adjusted only under the advice of a physician.***

This oxygen concentrator is not intended for life supporting or life sustaining applications.

The SeQual Integra Oxygen Concentrator is intended to provide supplemental oxygen as part of Long Term Oxygen Therapy for the clinically stable patient. It is not intended for life supporting, or life sustaining applications. As with any electrically powered device, the user may experience periods of non-operation as the result of electrical power interruption, or the need to have the oxygen concentrator serviced by a technician. An oxygen concentrator is not appropriate for any patient who would experience adverse health consequences as the result of such temporary interruption.

In certain circumstances oxygen therapy can be hazardous. It is advisable to seek medical advice before using this oxygen concentrator. This instruction manual will inform you about the use and care of the Integra Oxygen Concentrator and will serve as a reference as you use your oxygen concentrator.

Important Safety Instructions are shown Under the Following Headings:

Caution: Important safety information for hazards that might cause serious injury.

Warning: Information for preventing damage to the oxygen concentrator.

Do Not: Information to which you should pay special attention.

Important: Clarifying information, specific instructions, commentary, sidelights, or interesting points.

Symbols Used in Instruction Manual and on Oxygen Concentrator

Refer to this section for an explanation of the symbols and the warnings that accompany them.



"Read Instructions" This symbol, when used alone or in conjunction with any of the following symbols, indicates the need to consult the operating instructions provided with the product. A potential risk exists if the operating instructions are not followed.



"Attention or Caution" Consult accompanying documents. This symbol indicates important information that requires the user to take special precautions when certain conditions are present.



"No Smoking or Naked Flames" The use of oxygen therapy requires that special care be taken to reduce the risk of fire. Materials that burn in air and even some material that will not burn in air are easily ignited and burn rapidly in high concentrations of oxygen. For safety concerns, all possible sources of ignition must be kept away from the oxygen concentrator and preferably out of the room in which it is being used. Smoking in the proximity of an operating oxygen concentrator is dangerous, and can permanently damage the device and void the warranty.



"Use No Oil or Grease" Indicates important information about the possibility of spontaneous and violent ignition that may occur if oil, grease or other petroleum based substances come into contact with oxygen under pressure.



"Electrical Shock" Indicates the presence of an electric shock hazard. *Caution: To reduce the risk of electric shock, do not remove cover. There are no user serviceable parts inside. Refer servicing to a SeQual dealer or authorized service representative.*



"Audible Alarm" An audible indicator is provided to announce, in a tone distinctly different from the sounds generated by the oxygen concentrator during normal operation, a reduction in oxygen concentration or when the mains power has been interrupted.



"ON" (power) Green Power light is on when unit is energized (plugged in).



"Standby" Green light is on indicating the concentrator is running under normal operating conditions.



"ON" (condition) Push button starts concentrator running.



"OFF" (condition) Push button stops concentrator running.



"Reset Button" Circuit breaker reset. See Trouble Shooting Guide.



"Flow Rate Adjustment" The controlled quantity of oxygen increases as the flowrate adjustment knob is turned counter clockwise, or decreases as the Flow Rate Adjustment knob is turned clockwise.



"Type BF Equipment" F type applied part complying with the specified requirements of EN 60601-1 to provide a higher degree of protection against electrical shock than provided by type B applied part.



"Class II Equipment" Equipment in which protection against electrical shock does not rely on basic insulation only, but in which additional safety precautions are provided.



"Amperes"



"Alternating Current"



Oxygen Concentrator Information

SeQual's Integra oxygen concentrators are quiet, reliable and low maintenance sources of oxygen. The Integra is designed and constructed to consistently provide high concentrations of oxygen in a lightweight, compact cabinet that is easy to maneuver.

Using Oxygen Concentrators



Warning: Don't change the flow rate without consulting your physician.

Warning: Avoid alcohol and sedatives when using oxygen, they can slow your breathing.



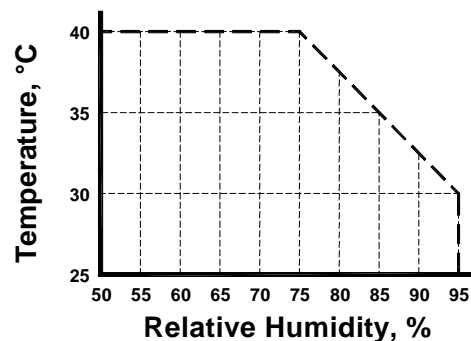
DANGER: Never use petroleum-based products. Use water-based lubricants to moisten lips or nostrils if needed.



"No Smoking or Naked Flames" The use of oxygen therapy requires that special care be taken to reduce the risk of fire. Materials that burn in air and even some material that will not burn in air are easily ignited and burn rapidly in high concentrations of oxygen. For safety concerns, all possible sources of ignition must be kept away from the oxygen concentrator and preferably out of the room in which it is being used. Smoking in the proximity of an operating oxygen concentrator is dangerous, and can permanently damage the device and void the warranty.

Recommended Performance Guidelines

Temperature	50° F to 104° F (10° C to 40° C)
Electrical	Use no extension cords or electrical outlets controlled by a switch.
Placement	No closer than 3 inches (7.6 cm) from the wall, draperies and furniture.
Environment	Smoke, pollutant, and fume free. Relative Humidity: 30% - 95%
Operating Time	Up to 24 hours per day.
Flow Rate	From 1 LPM to 7 LPM



Important: For rated performance at 7 LPM do not operate the Oxygen concentrator above the indicated boundaries. Flow rates of less than 7 LPM will tolerate higher temperature/humidity conditions.



The Proper Location

Usage in environments other than those described above may result in the need for increased oxygen concentrator maintenance. Select a location that avoids fumes and pollutants and allows the oxygen concentrator to draw in room air through the intake filter on the top of the cabinet without being restricted. Make sure the oxygen concentrator is at least three to six (3 - 6) inches (7.6 – 15.2 cm) away from walls, furniture and especially curtains or draperies that can impede or block adequate airflow to the oxygen concentrator. ***Do Not*** cover unit with a blanket, towel, quilt, etc. ***Do Not*** place objects under unit. Maintain at least ½ inch clearance under unit. Keep the oxygen concentrator at least five (5) feet (1.5 m) away from hot, sparking objects or open sources of flame. ***Do Not*** locate the unit near any heat source or heat register.

Before Operating Your Oxygen Concentrator

There are many different types of oxygen tubing, cannulas or facemasks and humidifiers that can be used with this oxygen concentrator. You should contact your local SeQual dealer/provider or authorized service representative for recommendations on which of these oxygen accessories will best fit your needs. They will also be able to give you advice on the proper maintenance and cleaning of these accessories.

- **Humidifier** - If your physician has prescribed a humidifier, follow the manufacturer’s instructions for attachment. Add distilled water to the level suggested in the manufacturer's instructions and attach the humidifier to the oxygen outlet port of the oxygen concentrator. ***Do Not*** overfill. Only use a humidifier recommended by your SeQual dealer/provider or authorized service representative. Humidifier’s suitable for use with the Integra Oxygen Concentrator include the Salter Labs Bubble Humidifier with 6 psi safety valve (ref 7600) or Salter Labs High Flow Bubble Humidifier (ref 7900). Use of other humidifiers may impair performance.



- **Oxygen Tubing** - Connect the oxygen tubing to the outlet port of the humidifier. When no humidifier is prescribed, the oxygen tubing can be attached directly to the oxygen outlet port. Connect the other end of the tube to the nasal cannula or facemask, if not already attached. **Important:** The tube fitting may be tight - ***Do Not*** use oil or grease to lubricate. To ensure there is enough pressure to deliver oxygen, the length of the tubing should not exceed 50 feet (15.2m). Maximum extension tubing length is dependent upon environmental conditions, tubing type, liter flow and any accessories used between DISS fitting and nasal cannula/mask. Shorter tubing lengths will be required in some cases. The internal diameter of the tubing should be no less than 3/16-inch (0.48 cm). Tubing not specified for use with this oxygen concentrator may impair the performance.

- **Cannula or facemask** -Your physician will have prescribed a cannula or facemask to deliver oxygen. In most cases they are already attached to the oxygen tubing. If not, follow the instructions included with the cannula or facemask to attach them to the oxygen tubing. Use accessories recommended by your SeQual dealer/provider or authorized service representative. Use of cannulas or facemasks not specified for use with this oxygen concentrator may impair the performance.



- **Alarm System** - The oxygen concentrator has an alarm system with a red visual alarm indicator light and buzzer. The alarm system will activate in the event of an internal fault or power outage. The red light may stay on for up to ten (10) minutes after start-up. This is a normal condition during the initial warm-up period.

- If the oxygen concentrator is equipped with an oxygen concentration monitor, this monitor indicates if the oxygen concentrator is performing up to the correct specifications. At normal therapeutic oxygen



concentration levels, the green light is activated. At lower than normal therapeutic oxygen levels, the yellow light is activated. The red alarm light activates and the oxygen concentrator shuts down when the system malfunctions and when service is needed. If the red light turns on, you should discontinue use of the oxygen concentrator and refer to the troubleshooting section of this manual or contact your SeQual dealer/provider or authorized service representative to schedule a service call.

Operating Your Oxygen Concentrator

Your SeQual dealer/provider or authorized service representative will demonstrate how to operate the oxygen concentrator. This manual serves as a supplemental reference to help you operate and maintain the unit. If you have any further questions or problems call your SeQual dealer or authorized service representative.

General Precautions - Retain the product's safety and operating instructions for future reference. Follow all operating and usage instructions. Observe all warnings on the product and in the operating instructions. To reduce the risk of fire, bodily injuries, and damage to the oxygen concentrator, observe all safety precautions.



Do Not connect to an extension cord or electrical outlet controlled by a switch. No other appliance should be plugged into the wall outlet. Voltage requirements are marked on the label on back of unit.

Important: Read "Important Safety Guidelines" section of this manual before plugging-in the power cord. **Do Not** use the unit if the power cord is damaged. **Warning** - Improper use of the power cord and plug may result in a fire or electrical shock hazard.

- Check to see if the power cord is plugged in and there is power to the outlet.
- Check that the oxygen concentrator is not placed near a heat register.

Important: SeQual's products operate safely when used according to their marked electrical ratings and product usage instructions. The power cord used with the Integra Oxygen Concentrator must meet the requirements of the country where the product is used.

Installation Instructions

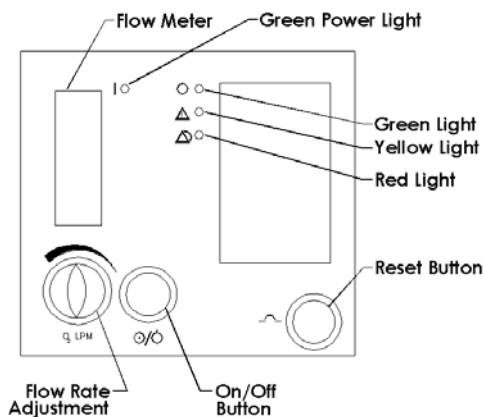
1. **Select a Location** - Locate oxygen concentrator in a well-ventilated space that provides adequate airflow and check if air is being prevented from entering the oxygen concentrator by furniture, draperies or clothing.
2. **Inspect Inlet Air Filter** - *Caution: Always check to see if the inlet air filter is clean.*



Air filter cleaning instructions are located in the maintenance section of this manual.

3. **ON/OFF Button** - *Caution:* Insert the plug into the electrical wall outlet. The green power light will illuminate to indicate that the unit is energized. Push the On/Off button; the green light will illuminate to indicate the power is **ON**. On OM models only, the green light will turn off during the period that warm-up is required.
4. **Warm-up Period** - *Caution:* After initially turning on the unit, wait (3) minutes for the unit to reach its specified performance. If the unit is equipped with an oxygen concentration monitor, the yellow and red lights will illuminate while the unit is warming up.
5. **Flow Rate Adjustment** - Adjust the flow rate to prescribed setting supplied by your physician. Turn flow rate knob until the display indicates the proper level. Turning the knob counter clockwise increases the flow, turning the knob clockwise decreases the flow.
Caution: The prescribed flow rate setting should only be adjusted under the advice of a physician.
6. **Reset Button** - If Reset Button pops up, press to reset oxygen concentrator to original operating conditions.





Operating Conditions

1. **Control Panel Display** - If the concentrator is equipped with an oxygen monitor, the oxygen concentration is being continuously monitored while the oxygen concentrator is running and oxygen is being produced.

If the concentration level falls below preset levels, an indicator light will activate*. Operating conditions are described in the following table.

Display of Operating Condition

Green Power Light	Green Light	Yellow Light	Red Light	Audible Alarm	Operating Condition	Response Required
Off	Off	Off	Off	Off	Cord not plugged in or outlet not energized.	Plug in power cord.
On	Off	Off	Off	Off	Unit not running.	Press ON/OFF button
On	Off	On	Blinking	Off	Unit running. * Warm-up < 8 Minutes	None
On	On	Off	Off	Off	Normal Operating Conditions	None
On	Off	On	Off	Off	Oxygen Concentration Below Normal Level *	Continue Use and Contact Home Care Dealer/Provider
On	Off	Off	On	On Steady	Oxygen Concentration Abnormal Level. Unit Shuts Down *	Contact Home Care Dealer/Provider
Off	Off	Off	Blinking	Beeping	Power Interruption or unit is overheating.	Check Plug and Power. Remove any obstruction from air opening. Refer to page 7 "The Proper Location"

* These conditions are displayed only on units equipped with oxygen monitor.

2. **Usage** - Use cannula or facemask recommended by your home care provider and breath normally.
3. **Non-Usage** - When not using the oxygen concentrator, press the On/Off button to turn it off.



Enhanced Power Management Feature

In the event of a Power Interruption:



Caution – Because the duration of a power interruption is unknown, seek an alternate supply of oxygen.

If a power outage occurs, the INTEGRA™ will activate both an audible, and a visual red indicator alarm to inform you that the INTEGRA™ is not operating. The INTEGRA™ must be located where the alarm system can be seen and heard.

If the duration of the interruption is shorter than thirty seconds, the INTEGRA™ will resume operation thirty seconds after the initial interruption.

Important: During the power interruption, you should press the ON/OFF switch to turn off the INTEGRA™. This will silence the alarms. You must press the ON/OFF switch again after the power is restored to turn on the INTEGRA™.

Maintenance

Routine Maintenance: Routine maintenance consists of changing the filters at regular intervals to keep the unit functioning for years. The user can easily achieve this maintenance. When other than routine maintenance is needed, contact your SeQual dealer/provider or authorized service representative.



Warning: Unplug the oxygen concentrator from the power outlet before cleaning or routine maintenance. Use a damp cloth for cleaning. ***Do Not*** directly apply liquid spray cleaners or aerosol cleaners.

- **Cabinet and Power Cord** - The cabinet and power cord can be cleaned with a mild detergent solution applied with a damp cloth and towel dried.
- **Air Inlet Filter** - Room air is drawn into the oxygen concentrator through the air inlet filter located on the top backside of the cabinet. Cleaning the air inlet filter is the most important activity you will perform to keep your oxygen concentrator performing properly. Check this air filter daily and clean it at least once a week.
 1. Remove the filter from the cabinet.
 2. Wash the filter in warm water using a mild detergent solution.
 3. Rinse the filter thoroughly and squeeze out the excess water.
 4. Allow the filter to air dry. **Caution:** *The filter should be free of liquid water and dry to the touch before reinstallation, as excess moisture may impair the proper operation of the oxygen concentrator.*
 5. Reinsert the filter in the cabinet.



Warning: The air inlet filter should be replaced as needed. If the oxygen concentrator is used in a dusty environment, the filter may need to be replaced more often. ***Do Not*** operate the oxygen concentrator for more than 30 minutes without a filter installed.

- **Cannula or Mask** - Follow the instructions supplied by the manufacturer. If no instructions are available:
 1. Wipe with a damp cloth every eight- (8) hours.
 2. Wash nasal prongs with liquid soap one (1) to two (2) times a week and rinse well.
- **Humidifier**
 1. If not indicated for single use only, follow the instructions supplied by the manufacturer. Your home care dealer/provider will carry out all internal maintenance. Your home care provider will perform maintenance inspections of the compressor, alarms, and other internal parts as needed.



Trouble Shooting Guide

Symptom	Probable Cause	Remedy
Audible Alarm Concentrator not running Circuit Breaker tripped Blinking Red Green Power light out	Power outage or tripped circuit breaker	Push Reset Button on control panel.
Audible Alarm Concentrator not running Circuit Breaker not tripped Blinking Red Green Power light out	Power cord not plugged in	Plug in power cord
	No power at wall outlet.	Check house circuit breaker or fuse and reset or replace as needed.
	Unit overheating	Remove any obstruction(s) from air openings and refer to page 7 "The Proper Location".
No oxygen flow Concentrator running No alarm indications	Humidifier or tubing blocked or kinked	Clean or replace humidifier or tubing.
	Filter blocked	Clean filter.
	Flow Control valve is closed	Turn valve counter clockwise to increase flow.
Low oxygen flow Flow adjusting valve full open	Restriction in humidifier or tubing.	Repair or replace as required.
	Filter restricted.	Clean filter.



Technical Data

Flow Rate	1 to 7 LPM
Oxygen Concentration	1 to 7 LPM 91 ± 3% at sea level
Oxygen Concentration Indicator	Green Light = Normal Operation Yellow Light = Below Normal Operation (85%*) Red Light = Abnormal Operation (70%*)
Oxygen Outlet Pressure	Nominal 7.0 psig (48.2 kPa) ¹ - Maximum 11.0 psig (75.8 kPa)
Electrical Power	115V~, 60Hz, 5.0A
Operating Temperature	50° F to 104° F (10° C to 40° C)
Dimensions (H x W x D)	26.5 in. (66 cm) H × 14.7in. (37 cm) W × 19.5 in. (50 cm) D
Flow Indication	Ball Flow Meter (Ball Flow Meter accuracy is ±10%)
Audible Alarm Indicators	Power Interruption Excessive Internal Temperature Outlet Pressure [35-36 psig (241.2-248.1 kPa) relief valve] Low Therapeutic Oxygen Output* <70% oxygen
Filters	Cabinet, Compressor Inlet and HEPA
Device Classification	IEC Class II, Type BF Applied Part, Continuous Operation
Transport/Storage Requirements	Temperature: -4° F (-20° C) to +140° F (+60° C) Humidity: Up to 95% Non-Condensing
Back pressure Effect on Flow Indicator	0 psig (0 kPa): 7 LPM 1 psig (7 kPa): 6.86 LPM
OSCI Operation*	Temperature: 50° F to 104° F (10° C to 40° C) Independent of Atmospheric Pressure.

* Where equipped. Subject to ±3% system concentration accuracy, and for backpressures up to 7kPa.

¹ Outlet pressure may decline to 5.0 psig (34.5 kPa) nominal at 10,000 ft altitude.



Electromagnetic Compatibility

This equipment has been tested and found to comply with the limits for medical devices to the EN60601-1-2: 1994 Electromagnetic Compatibility standard. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation. This equipment generates uses and can radiate radio frequency energy and, if not installed according with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving device.
- Increase the separation distance between the equipment.
- Connect the equipment into an outlet on a circuit different from that which the other device(s) are connected.
- Consult the manufacturer or service technician for help.

Disposal of Equipment and Accessories

Follow local governing ordinances and recycling plans regarding disposal of device components.

Manufacturer:

SeQual Technologies Inc.
11436 Sorrento Valley Road
San Diego, CA 92121 USA
(858) 202-3100