Invacare® Platinum® Series

IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ,
IRC9LXO2AWQ

This manual MUST be given to the user of the product.
BEFORE using this product, read this manual and save for future reference.

INVACARE®

Yes, you can.®

Contents

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1 General

1.1 Symbols

Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.

DANGER!
– Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING!
– Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION!
– Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both.

Gives useful tips, recommendations and information for efficient, trouble-free use.

Symbols in Documentation


Read manual


No Smoking


No Open Flame


Class II, Double Insulated


Alternating Current


Type BF equipment


Recycle


DO NOT dispose of in household waste


Electrical Hazard


Keep dry

EC Representative


Manufacturer

Call supplier

**This product complies with Directive 93/42/EEC concerning medical devices.

The launch date of this product is stated in the CE declaration of conformity.

For more details about CE marks, refer to Typical Product Parameters.

Symbols on Product

| Unit running

○ Unit not running

O_2 Indicators

Symbol	O_2 Purity	Indicator Lights (LED)
O_2	SYSTEM OKAY O_2 over 85%	GREEN Indicator Light
	O_2 between 73% to 85%	YELLOW Indicator Light A. YELLOW Solid B. YELLOW Flashing Sensor Failure. Call a qualified technician
	SYSTEM FAILURE O_2 Below 73%	RED Indicator Light Refer to Troubleshooting.

LX Indicators

Symbol	O_2 Purity	Indicator Lights (LED)
I/O	SYSTEM OKAY	GREEN Indicator Light
	SYSTEM FAILURE	RED Indicator Light Continuous Audible Alarm Sieve — GARD™ Compressor Shutdown Call a qualified technician.

1.2 Intended Use

Your oxygen concentrator is intended for individual use by patients with respiratory disorders who require supplemental oxygen. The device is not intended to sustain or support life. The concentrator is intended for use within a home or institutional environment.

DANGER!
Risk of Injury or Death
This product is to be used as an oxygen supplement and is not intended to be life-supporting or life-sustaining. ONLY use this product if the patient is capable of spontaneous breath, able to inhale and exhale without the use of a machine.
– DO NOT use in parallel or series with other oxygen concentrators or oxygen therapy devices.

DANGER!
Risk of Injury or Death
Depending on their medical condition, patients on flow rates greater than 5 l/m may be at an increased risk for serious injury or death in the event of failure.
– ALWAYS discuss this increased risk with your health care provider BEFORE using this product if you are prescribed a flow rate greater than 5 l/m.

DANGER!
Risk of Injury or Death
While Invacare strives to produce the best oxygen concentrator in the market today, this oxygen concentrator can fail to produce oxygen due to power failure or device malfunction.
– ALWAYS have a backup source of oxygen readily available.
– In the event the concentrator fails to produce oxygen, the concentrator will briefly alarm signaling the patient to switch to their backup source of oxygen. Refer to Troubleshooting for more detail.

WARNING!
Risk of Injury or Damage
Use of this product outside of the intended use and product parameters has not been tested and may lead to product damage, loss of product function, or personal injury.
– DO NOT use this product in any way other than described in the product parameters and intended use sections of this manual.

1.3 Description

The Invacare Platinum concentrator is used by patients with respiratory disorders who require supplemental oxygen. The device is not intended to sustain or support life.

The oxygen concentration level of the output gas ranges from 87% to 95.6%. The oxygen is delivered to the patient through the use of a nasal cannula.

The Invacare Platinum concentrator uses a molecular sieve and pressure swing adsorption methodology to produce the oxygen gas output. Ambient air enters the device, is filtered and then compressed. This compressed air is then directed toward one of two nitrogen adsorbing sieve beds.

Concentrated oxygen exits the opposite end of the active sieve bed and is directed into an oxygen reservoir where it is delivered to the patient.

The Invacare Platinum concentrator is capable of operation by the patient in a home environment or in an institutional environment. Device operates at a nominal 230 VAC/50 Hertz supply.

Service information will be available upon request to qualified technical personnel only.

1.4 Contraindications

Invacare is not aware of any contraindications for the Invacare Platinum Concentrator Series.

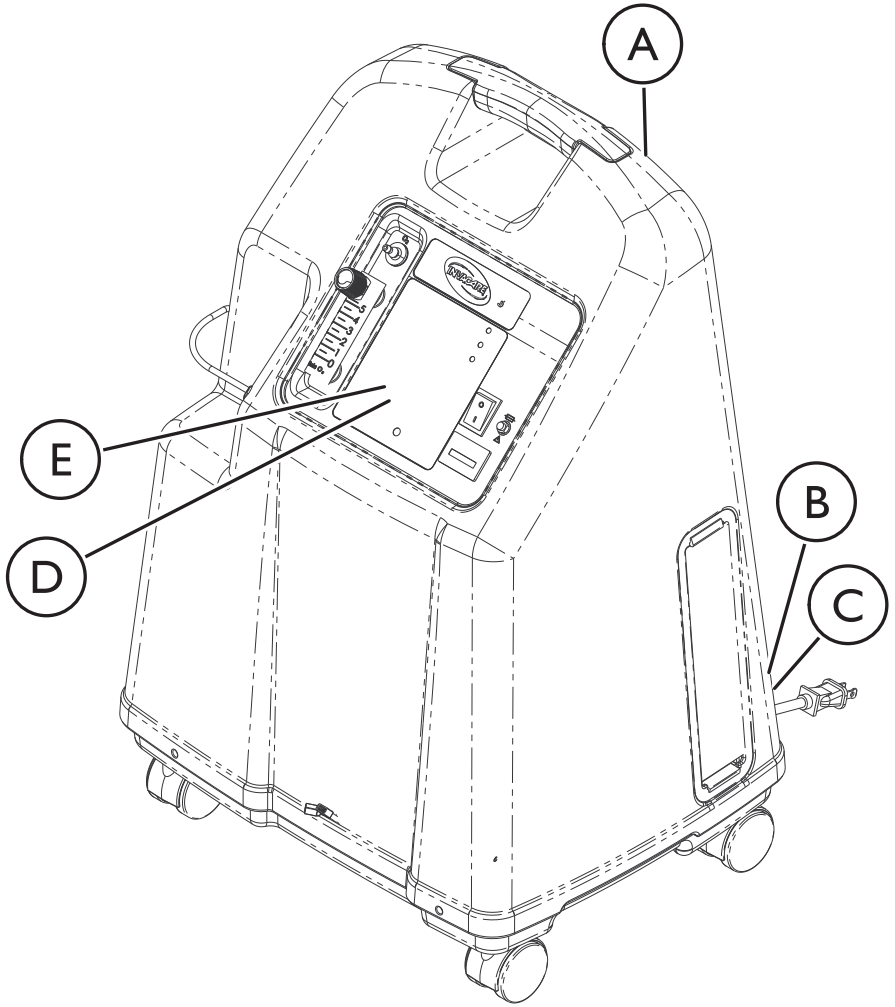
1.5 Optional Accessories

There are many different types of humidifiers, oxygen tubing, cannulas and masks that can be used with this device. You should contact your local home care provider for recommendations on which of these devices will be best for you. They should also give you advice on the proper usage, maintenance, and cleaning.

The supply accessories (nasal cannula, mask, tubing, humidifier, etc.) used to deliver oxygen to the patient need to include a means to reduce the propagation of fire in the accessories for the safety of the patient and others. If a commercially available, fire-activated flow stop device is used in the accessories setup, it should be placed as close to the patient as possible.

2 Safety

2.1 Label Locations



Ⓐ	Serial Number Label is located on the resonator intake assembly.
Ⓑ	Specification Label is located on the back of the concentrator at the base.
Ⓒ	Double Insulation Label is located on the back of the concentrator at the base.

Ⓓ

IRC5LX02AW, IRC5LXO2AWQ, IRC9LXO2AWQ

HomeFill® Compatible
with SensO$_2$ ™

SEE USER MANUAL OR CONTACT YOUR HOME EQUIPMENT PROVIDER FOR SAFE OPERATING INSTRUCTIONS, ALARMS, AUDIBLE ALERTS AND USE OF ACCESSORIES.

O_2

⚠ DANGER RISK OF FIRE - NO SMOKING, OPEN FLAME OR IGNITION SOURCES

Keep ALL sources of ignition out of the room in which this product is located and away from areas where oxygen is being delivered. Textiles, oil and other combustibles are easily ignited and burn with great intensity in oxygen enriched air.

⚠ DANGER RISK OF ELECTRIC SHOCK

DO NOT remove cover. Refer servicing to qualified service personnel.

Ⓔ

IRC5LXAW

HomeFill® Compatible

SEE USER MANUAL OR CONTACT YOUR HOME EQUIPMENT PROVIDER FOR SAFE OPERATING INSTRUCTIONS, ALARMS, AUDIBLE ALERTS AND USE OF ACCESSORIES.

I / O

⚠ DANGER RISK OF FIRE - NO SMOKING, OPEN FLAME OR IGNITION SOURCES

Keep ALL sources of ignition out of the room in which this product is located and away from areas where oxygen is being delivered. Textiles, oil and other combustibles are easily ignited and burn with great intensity in oxygen enriched air.

⚠ DANGER RISK OF ELECTRIC SHOCK

DO NOT remove cover. Refer servicing to qualified service personnel.

2.2 General Guidelines

In order to ensure the safe installation, assembly and operation of the concentrator these instructions MUST be followed.

DANGER!
Risk Of Death, Injury, Or Damage
Improper use of the product may cause death, injury or damage. This section contains important information for the safe operation and use of this product.

- DO NOT use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as user manuals, service manuals or instruction sheets supplied with this product or optional equipment.
- If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment.
- Check ALL external components and carton for damage. In case of damage, or if the product is not working correctly, contact a technician or Invacare for repair.
- THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.

DANGER!
Risk Of Death, Injury, Or Damage From Fire
Textiles, oil or petroleum substances, grease, greasy substances and other combustibles are easily ignited and burn with great intensity in oxygen enriched air and when in contact with oxygen under pressure. To avoid fire, death, injury or damage:

- DO NOT SMOKE while using this device.
- DO NOT near OPEN FLAME or IGNITION SOURCES.
- DO NOT use any lubricants on concentrator unless recommended by Invacare.
- NO SMOKING signs should be prominently displayed.
- Avoid creation of any spark near oxygen equipment. This includes sparks from static electricity created by any type of friction.
- Keep all matches, lighted cigarettes or other sources of ignition out of the room in which this concentrator is located and away from where oxygen is being delivered.
- Keep the oxygen tubing, cord, and concentrator out from under such items as blankets, bed coverings, chair cushions, clothing, and away from heated or hot surfaces including space heaters, stoves, and similar electrical appliances.

CAUTION!
Federal (statutory) law restricts this device sale to or on the order of a medical practitioner licensed by a governmental agency where he/she practices.

- ONLY a licensed medical practitioner may order the purchase or use of this device.

DANGER!
Risk of Death, Injury, from Electric Shock
To reduce the risk of burns, electrocution, death or injury to persons:
- DO NOT disassemble. Refer servicing to qualified service personnel. There are no user serviceable parts.
- Avoid using while bathing. If continuous usage is required by the physician's prescription, the concentrator must be located in another room at least 7ft (2.5m) from the bath.
- DO NOT come in contact with the concentrator while wet.
- DO NOT place or store concentrator where it can drop into water or other liquid.
- DO NOT reach for concentrator that has fallen into water. Unplug IMMEDIATELY.
- DO NOT use frayed or damaged AC adapter cords.

WARNING!
Risk Of Injury Or Damage
- Invacare products are specifically designed and manufactured for use in conjunction with Invacare accessories. Accessories designed by other manufacturers have not been tested by Invacare and are not recommended for use with Invacare products.
- There are many different types of humidifiers, oxygen tubing, cannulas and masks that can be used with this device. You should contact your local home care provider for recommendations on which of these devices will be best for you. They should also give you advice on the proper usage, maintenance, and cleaning.

DANGER!
Risk of Injury or Death
To avoid choking or ingestion of chemicals from airway contamination:
- DO NOT use the concentrator in the presence of pollutants, smoke, fumes, flammable anesthetics, cleaning agents, or chemical vapors.

WARNING!
Risk of Injury or Death
To prevent injury or death from product misuse:
- Closely supervise when this concentrator is used by or near children or physically-challenged individuals.
- Monitor patients using this device who are unable to hear or see alarms or communicate discomfort.

WARNING!
Risk of Injury or Death
To avoid choking and/or strangulation from tubing entanglement:
- Keep children and pets away from nasal cannula and tubing.
- Close supervision is necessary when the nasal cannula is used by or near children and/or disabled persons.

WARNING!
Risk of Injury or Death
To reduce the risk of injury or death from illness:
- Replace the nasal cannula on a regular basis. Check with your equipment provider or physician to determine how often the cannula should be replaced.
- DO NOT share cannulas between patients.

WARNING!
Risk of Injury
A change in altitude may affect total oxygen available to you. To prevent oxygen deprivation:
– Consult your physician before traveling to higher or lower altitudes to determine if your flow settings should be changed.

WARNING!
Risk of Injury or Damage
To prevent injury or damage from cord misuse:
– DO NOT move or relocate concentrator by pulling on the cord.
– DO NOT use extension cords with AC power adapters provided.
– Properly store and position electrical cords and/or tubing to prevent a tripping hazard.

WARNING!
Risk of Injury or Damage
To prevent injury or damage from misuse:
– NEVER leave concentrator unattended when plugged in.
– Make sure concentrator is off when not in use.

WARNING!
Risk of Injury or Damage
Invacare oxygen concentrators are specifically designed to minimize routine preventive maintenance. To prevent injury or damage:
– Only professionals of the healthcare field or persons fully conversant with this process such as factory trained personnel should perform preventive maintenance or performance adjustments on the oxygen concentrator, except for tasks described in this manual.
– Users should contact your dealer or Invacare for service.

CAUTION!
Risk of Damage
To prevent damage from liquid ingress:
– If the concentrator is not working properly, if it has been dropped or damaged, or dropped into water, call equipment provider/qualified technician for examination and repair.
– NEVER drop or insert any object or liquid into any opening.
– Invacare recommends the concentrator not be used in the rain.

2.3 Radio Frequency Interference

WARNING!
Risk of Injury or Damage
To reduce the risk of injury or product damage from interference with wireless equipment:
– Keep concentrator at least 9.8 ft (3.0 m) away from wireless communication equipment such as wireless home network devices, mobile phones, cordless phones and base stations, walkie-talkies, etc.

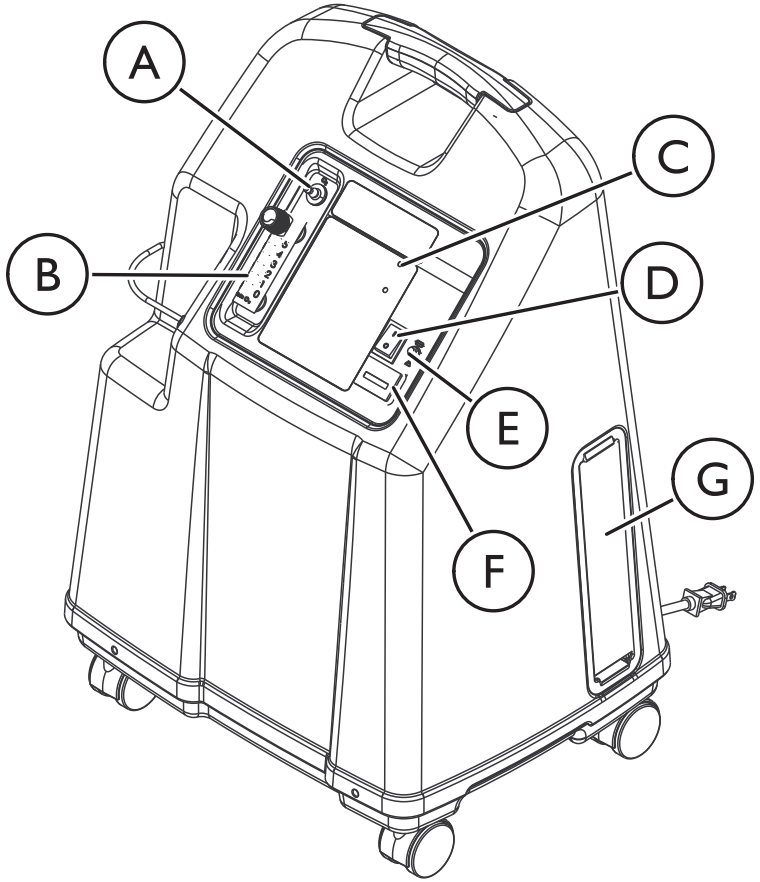
This equipment has been tested and found to comply with EMC limits specified by IEC/EN 60601-1-2. These limits are designed to provide a reasonable protection against electromagnetic interference in a typical medical installation.

Other devices may experience interference from even the low levels of electromagnetic emissions permitted by the above standards. To determine if the emissions from the concentrator are causing the interference, turn the concentrator Off. If the interference with the other device(s) stops, then the concentrator is causing the interference. In such rare cases, interference may be reduced or corrected by one of the following measures:

- Reposition, relocate, or increase the separation between the equipment.
- Connect the equipment into an outlet on a circuit different from that to which the other device(s) is connected.

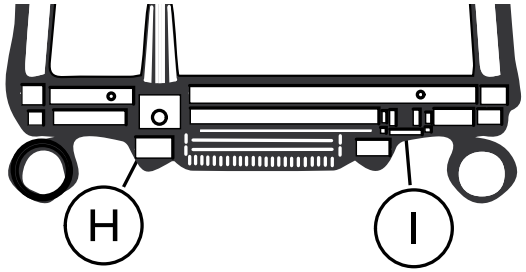
3 Components

3.1 Component Identification



Ⓐ	Oxygen Outlet
Ⓑ	Flowmeter
Ⓒ	Oxygen Purity Indicator Lights/Fault and Power Indicator Lights
Ⓓ	Power Switch
Ⓔ	Circuit Breaker
Ⓕ	Elapsed Time Meter
Ⓖ	Cabinet Filter

Rear View



Ⓗ	Power Cord
Ⓘ	HomeFill Outlet Fitting

Accessories (Not Shown): HomeFIll home oxygen compressor — IOH200AW

The HomeFill outlet fitting Ⓘ is to be used only for filling oxygen cylinders with the HomeFill home oxygen compressor. The outlet fitting does not affect concentrator performance. Refer to the HomeFill user manual, for connection and operating instructions. When not in use, the plug provided with the concentrator should be inserted into the outlet fitting. For more information about the HomeFill, contact your Invacare dealer.

4 Setup

4.1 Shipping and Handling

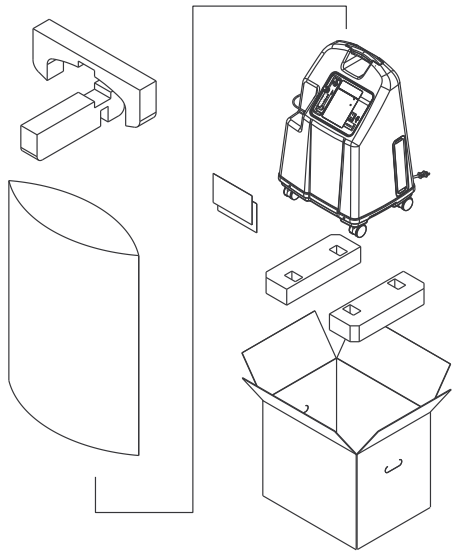
Before you install and operate the concentrator, please refer to Platinum Series User Manual.

The Platinum concentrator should ALWAYS be kept in the upright position to prevent cabinet damage while being transported. The shipping container has been designed to assure maximum protection of the concentrator.

If the concentrator is to be reshipped by common carrier, it should be packed in a new carton. Additional cartons are available from Invacare.

The air compressor suspension system has been engineered to withstand severe motion and orientation.

4.2 Unpacking



1. Check for any obvious damage to the carton or its contents. If damage is evident, notify the carrier, or your local dealer.
2. Remove all loose packing from the carton.
3. Carefully remove all the components from the carton.

> Unless the oxygen concentrator is to be used IMMEDIATELY, leave concentrator in its packaging for storage until use is required.

4.3 Inspection

1. Inspect/examine exterior of the concentrator for nicks, dents, cracks, scratches or other damage.
2. Inspect all components.

4.4 Storage

1. Store the repackaged oxygen concentrator in a dry area. Refer to Typical Product Parameters for storage temperature parameters.
2. DO NOT place objects on top of repackaged concentrator.

5 Usage

5.1 Introduction

Your oxygen concentrator is intended for individual use indoors. It is an electronically operated device that separates oxygen from room air. It provides high concentration of oxygen directly to you through a nasal cannula. Clinical studies have documented that oxygen concentrators are therapeutically equivalent to other types of oxygen delivery systems.

Your provider will show you how to use your oxygen concentrator. He/She should be contacted with any questions or problems regarding your oxygen concentrator. This user manual will tell you about your concentrator and will serve as a reference as you use your concentrator.

5.2 Select a Location

WARNING!
Risk of Injury or Damage
To avoid injury or damage from airborne pollutants and/or fumes and for optimal performance:
- Locate and position the concentrator in a well ventilated space so that the air intake and the air exhausts are not obstructed.
- NEVER block the air openings of the concentrator or place it on a soft surface, such as a bed or couch, where the air opening may be blocked.
- Keep the openings free from lint, hair and similar foreign items.
- Keep concentrator at least 12 inches (30,5 cm) away from walls, draperies and furniture.
- Avoid use in presence of pollutants, smoke or fumes, flammable anesthetics, cleaning agents or chemical vapors.
- DO NOT use in a closet.

WARNING!
Risk of Injury
To avoid injury during therapy:
- The oxygen concentrator MUST be placed on a level surface for use.
- DO NOT relocate the oxygen concentrator while in use.

You may select a room in your house where using your oxygen concentrator would be most convenient. Your concentrator can be easily rolled from room to room on its casters.

Your oxygen concentrator will perform best when operated under the conditions outlined in the table below.

Usage in environments other than those described may result in the need for increased equipment maintenance. The air intake of the unit should be located in a well ventilated area to avoid airborne pollutants and/or fumes.

Recommended Guidelines for Optimum Performance

Temperature:	10°C - 35°C (50°F - 95°F)
Electrical:	No extension cords.
Placement:	No closer than 30,5 cm (12 in) from the wall, furniture, draperies, or similar surfaces.
Tubing and Cannula:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 2,1 m (7 ft) cannula with a maximum 15,2 m (50 ft) of Crush-Proof Tubing (DO NOT pinch.)
	IRC9LXO2AWQ Recommended use up to 15.2 m (50 ft) high flow tubing with high flow cannula at all flow rates.
Environment:	Smoke and soot-free. No confined spaces (Example: No closets).
Relative Humidity:	20 to 60%
Time of Operation:	Up to 24 hours per day.
Flow Rate	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 0.5 L/min. to 5 L/min. Flow rates less than 1 L/min., are not recommended.
	IRC9LXO2AWQ 1 L/min. to 9L/min. Flow rates less than 1 L/min. are not recommended.
Minimum Operating Time:	30 Minutes

Ensure that your concentrator is at least 30,5 cm (12 in) away from walls, draperies or furniture to assure sufficient air flow. Avoid deep pile carpets and heaters, radiators or hot air registers.

5.3 Setting Up the Concentrator

1. Plug in power cord to an electrical outlet.
2. Connect Humidifier (if so prescribed).

5.3.1 Setting Up the Humidifier

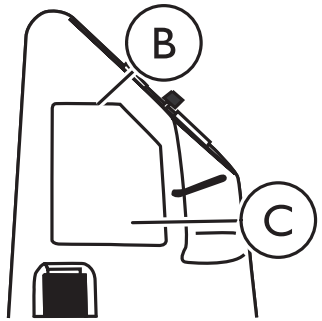
WARNING!
Risk of Injury or Damage
To avoid burns from steam or hot water, inhalation of water and/or water damage to the concentrator:
- DO NOT fill humidifier bottle with hot water. Allow boiled water to cool to room temperature before filling.
- DO NOT overfill humidifier.
- Replace the humidifier cap and securely tighten. Confirm that the cap is not cross-threaded on the humidifier bottle.
- DO NOT reverse the oxygen input and output connections. Water from the humidifier bottle will travel through the cannula back to the patient if input and output connections are reversed.
- When using tubing connections longer than 2.1 m (7 feet) in length, position the humidifier as close to the patient as possible to allow for maximum humidification output.

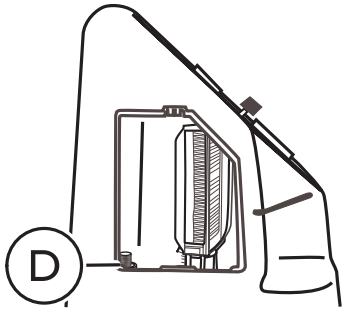
WARNING!
Risk of Injury or Damage
Failure to properly install the humidifier bottle or other accessories to the concentrator will impact the flow of oxygen.
- To check for proper operation of the oxygen concentrator and accessories, place the end of the nasal cannula under the surface of a half-full cup of water and look for the bubbles.
- If there are no bubbles, check all connections (including humidifier bottle and other accessories, if applicable) and repeat. Contact your dealer or service provider immediately if bubbles still do not appear.

Filling the Humidifier Bottle Ⓐ

1. Remove cap from bottle.
2. Fill humidifier bottle Ⓐ with boiled tap water or bottled water to the level indicated by the manufacturer. Boil tap water for approximately 10 minutes and cool to room temperature prior to use.

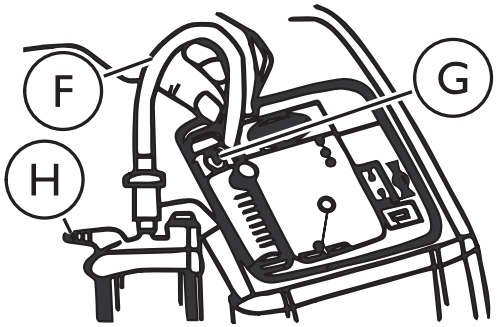
CAUTION!
Risk of Damage
– Confirm the humidifier cap is not cross-threaded on the humidifier bottle.





3. Insert a flathead screwdriver in the plate groove Ⓑ on the top edge of the filter access door Ⓒ and gently pry the filter access door off.

4. Pull up and remove the humidifier bottle adapter Ⓓ (next to inlet filter).



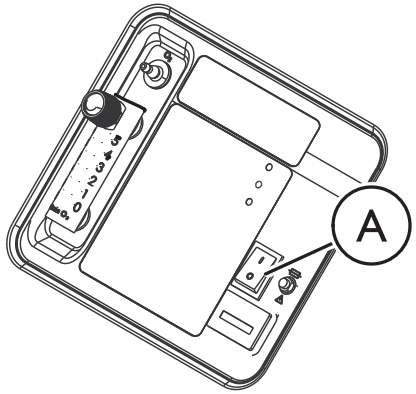
WARNING!
Risk of Injury
To avoid impacting the flow of oxygen:
– Install the humidifier bottle and/or other accessories properly.

5. Attach the humidifier bottle adapter to the humidifier bottle by turning the wing nut on the humidifier bottle counterclockwise until it is securely fastened.
6. When placing the humidifier bottle in the compartment Ⓔ on the concentrator, attach the humidifier bottle/adapter tube Ⓕ to the oxygen outlet connector Ⓖ on the concentrator.

   When using tubing connections longer than 2.1 m (7 feet) in length, position the humidifier as close to the patient as possible to allow for maximum humidification output.

7. Attach the patients' nasal cannula supply tube to the humidifier bottle outlet Ⓗ.
8. After assembly, ensure that oxygen is flowing through the nasal cannula.
9. Replace the filter access door on the side of concentrator by snapping it back into the plate groove.

5.3.2 Turning the Concentrator On

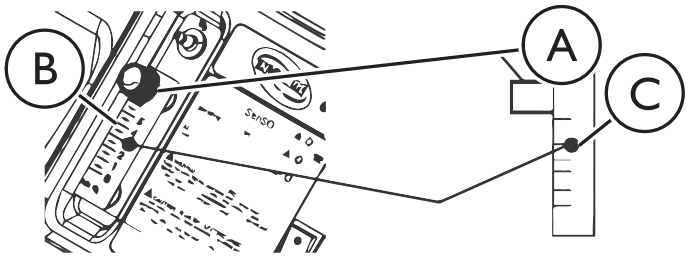


1. Press power switch Ⓐ to On position.

   All the panel lights and the audible alarm will come on for one second, indicating that the unit is functioning properly.

5.3.3 Flowrate

WARNING!
Risk of Injury
To avoid injury from excess oxygen or a deficit of oxygen:
– DO NOT change the L/min setting on the flowmeter unless a change has been prescribed by your physician or therapist.
– DO NOT set the flow greater than 9 L/min.



1. Turn the flowrate knob Ⓐ to the setting prescribed by your physician or therapist.

   To properly read the flowmeter Ⓑ, locate the prescribed flowrate line on the flowmeter. Next, turn the flow knob until the ball Ⓒrises to the line. Now, center the ball on the L/min line prescribed.

2. If the flowrate on the flowmeter ever falls below 0.5 L/min for more than about one minute, the Potential Obstruction Alert will be triggered. This is a rapid beeping of the audible alarm. Check your tubing or accessories for blocked or kinked tubing or a defective humidifier bottle. After rated flow is restored to between 0.5 L/min and 0.75 L/min., the Potential Obstruction Alert will turn off.

   A Potential Obstruction Alert indicates a condition that may be associated with a partial or complete obstruction of oxygen output.

   The use of some accessories such as the PreciseRx™ pediatric flowmeter and the HomeFill compressor will deactivate the Potential Obstruction Alert.

5.3.4 SensO_2 Oxygen Purity Indicator

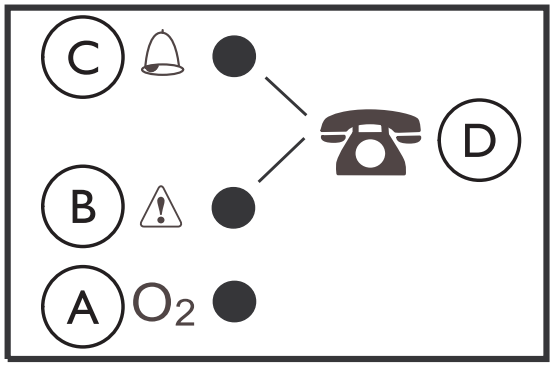
This feature monitors the purity of oxygen generated by the oxygen concentrator. If purity falls below factory preset standards, indicator lights on the control panel will illuminate.

Initial Startup of the Concentrator

Concentrator may be used during the initial warm-up time (approximately 30 min.) while waiting for the O_2 purity to reach maximum.

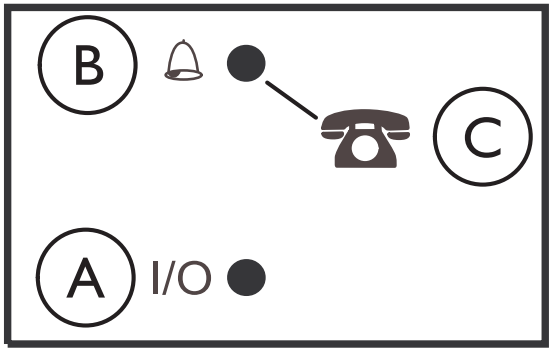
When the unit is turned on, the GREEN light will come on (SYSTEM OK/O_2 greater than 85%). After five minutes, the oxygen sensor will be operating normally and will control the indicator lights depending on oxygen concentration values.

Explanation of Oxygen Purity Indicator Lights



	Symbol	O_2 Purity	Indicator Light (LED)	Explanation
Ⓐ	O_2	SYSTEM OKAY O_2 over 85%	GREEN light	No action is needed. Normal for operation.
Ⓑ	⚠	O_2 between 73% and 85%	YELLOW light (Solid)	Immediately call supplier. You may continue to use the concentrator unless instructed otherwise by your supplier. Be certain that backup oxygen is nearby.
			YELLOW light flashing	
Ⓒ	🔔	SYSTEM FAILURE O_2 below 73%	RED light (Solid)	Continuous Audible Alarm Sieve-GARD™ Compressor Shutdown SYSTEM FAILURE. Total unit shutdown. Immediately switch to backup oxygen supply and call supplier.
Ⓓ	☎	—	—	Call Supplier

5.3.5 Units without SensO$_2$



Concentrator may be used during the initial start warm-up time (approximately 30 min). O_2 purity will build to a maximum during this period.

	Light	Symbol	Explanation
Ⓐ	GREEN light	I/O	Normal Operation
Ⓑ	RED light		Continuous Audible Alarm Sieve-GARD™ Compressor Total unit shutdown. Immediately switch to backup oxygen supply and call supplier.
Ⓒ	—		Call Supplier

5.4 Main Power Loss Alarm System

The alarm system contains no battery - and is thereby maintenance free. The alarm system is powered by a capacitor that is continuously charged and ready to trigger the alarm in the event of main power loss.

5.5 Elapsed Time Meter (Hour Meter)

The hour meter displays the cumulative number of hours the unit has operated. Refer to Component Identification for specific location.

6 Maintenance

6.1 Cleaning the Cabinet

DANGER!
Risk of Injury or Damage
Invacare oxygen concentrators are specifically designed to minimize routine preventive maintenance. To prevent injury or damage:
– Only qualified personnel should perform preventive maintenance on the oxygen concentrator.
– DO NOT remove cabinet.

DANGER!
Risk of Injury or Damage
Liquid will damage the internal components of the concentrator. To avoid damage or injury from electrical shock:
– Turn Off the concentrator and unplug the power cord before cleaning.
– DO NOT allow any cleaning agent to drip inside the air inlet and outlet openings.
– DO NOT spray or apply any cleaning agent directly to the cabinet.
– DO NOT hose down the product.

CAUTION!
Risk of Damage
Harsh chemical agents can damage the concentrator. To avoid damage:
– DO NOT clean the cabinet or filter with alcohol and alcohol based products (isopropyl alcohol), concentrated chlorine-based products (ethylene chloride), and oil-based products (Pine-Sol®, Lestoil®) or any other harsh chemical agents. Only use mild liquid dish detergent (such as Dawn™).

At a minimum, preventive maintenance MUST be performed according to the maintenance record guidelines. In places with high dust or soot levels, maintenance may need to be performed more often. Refer to the Maintenance Checklist.

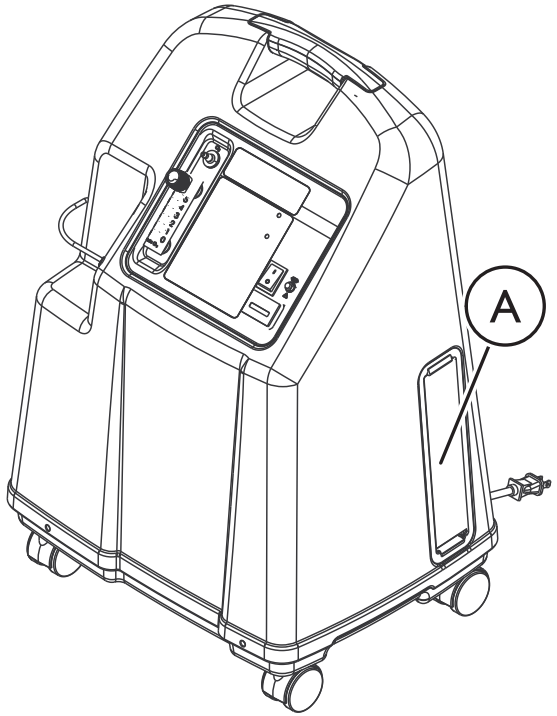
Periodically clean the concentrator's cabinet as follows:

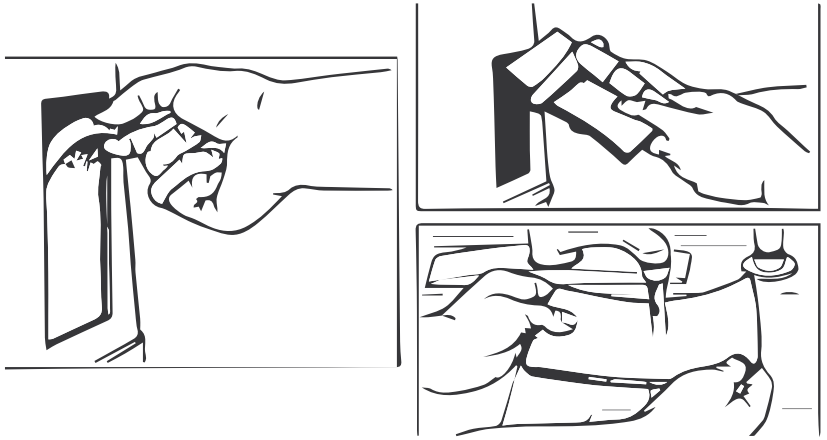
1. Use a damp cloth, or sponge, with a mild detergent such as Dawn™ dish washing soap to gently clean the exterior case.
2. Allow the concentrator to air dry, or use a dry towel, before operating the concentrator.

6.2 Cleaning the Cabinet Filter

CAUTION!
Risk of Damage
To avoid damage from clogging:
– DO NOT operate the concentrator without the filter installed.

There are two cabinet filters located on each side of the cabinet.





1. Remove the filter Ⓐ and clean as needed.

   Environmental conditions that may require more frequent inspection and cleaning of the filter include, but are not limited to: high dust, air pollutants, etc.

2. Clean the cabinet filter with a vacuum cleaner or wash with a mild liquid dish detergent (such as Dawn™) and water. Rinse thoroughly.
3. Thoroughly dry the filter and inspect for fraying, crumbling, tears and holes. Replace filter if any damage is found.
4. Reinstall the cabinet filter.

6.3 Humidifier Cleaning and Thermic Disinfection

Clean and disinfect the oxygen humidifier daily to reduce limestone deposits and eliminate possible bacterial contamination. Follow the instructions provided by the manufacturer. If none are provided, follow these steps:

1. Wash humidifier in soapy water and rinse with a solution of ten parts water and one part vinegar.
2. Rinse thoroughly with hot water.
3. Air dry thoroughly.

To limit bacterial growth, air dry the humidifier thoroughly after cleaning when not in use. Refer to Set Up for use.

6.4 Cleaning and Disinfection Between Patients

WARNING!
Risk of Injury or Damage
To prevent injury from infection or damage to concentrator:
– Only qualified personnel should perform cleaning and disinfection of the oxygen concentrator and accessories between patients.

Follow these instructions to eliminate possible pathogen exchange between patients due to contamination of components or accessories. Preventive Maintenance should also be performed at this time if necessary.

1. Dispose of and replace all patient side accessories not suitable for multiple patient use, including but not limited to:
   - Nasal Cannula and Tubing
   - Mask
   - Humidifier
2. Perform maintenance procedures described in this manual and items on Preventive Maintenance Checklist
3. Check concentrator for possible external damage or signs that it may require service or repair.
4. Ensure concentrator functions properly and all alarms are in working order.
5. Before repackaging and distribution to new patient, ensure packaging contents contain the concentrator, power cord, air inlet scoop, assembly instructions, humidifier, cannula, labels and user manual.

6.5 Preventive Maintenance Checklist

Model No: **Serial No:**

ON EACH INSPECTION							
Record Date of Service							
Record Elapsed Hours on Hour Meter							
Clean Cabinet Filter(s) (Refer to Cleaning the Cabinet Filter.)							
Check Prescribed L/min. Flow Rate							
DURING PREVENTIVE MAINTENANCE SCHEDULE, OR BETWEEN PATIENTS							
UNITS WITHOUT SensO$_2$ — Every 6 months of continuous use (Equivalent to 4,380 hours)							
Check Oxygen Concentration (green indicator light)							
Clean/Replace Cabinet Filter(s) (Refer to Cleaning the Cabinet Filter.)							
Check/Replace Outlet HEPA Filter*							
Check/Replace Compressor Inlet Filter*							
Check Power Loss Alarm*							
UNITS WITH SensO$_2$ — Every 3 years of continuous use (Equivalent to 26,280 hours)							
Check Oxygen Concentration (green indicator light)							
Clean/Replace Cabinet Filter(s) (Refer to Cleaning the Cabinet Filter.)							
Check/Replace Outlet HEPA Filter*							
Check/Replace Compressor Inlet Filter*							
Check Power Loss Alarm*							
*To be conducted by provider or qualified service technician. Refer to service manual.							

7 After Use

7.1 Recycling Information

This product has been supplied from an environmentally aware manufacturer who complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/EU. This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

Follow local governing ordinances and recycling plans regarding disposal of the concentrator or components normally used in operation. The concentrator does not generate waste or residue in operation.

- DO NOT dispose of the concentrator in the normal waste stream.
- Any accessories not part of the concentrator MUST be handled in accordance with the individual product marking for disposal.
- DO NOT dispose of the internal or supplemental battery packs. Battery packs should be returned to your dealer/provider.

Invacare® is continuously working towards ensuring that the company's impact on the environment, locally and globally, is reduced to a minimum. We comply with the current environmental legislation (e.g. WEEE and RoHS directives). We only use REACH compliant materials and components.

7.2 Wear and Tear

Invacare reserves the right to ask for any item back that has an alleged defect in workmanship. See Warranty that shipped with the product for specific warranty information.

Refer to the User Manual for proper preventative maintenance schedule and use of the product.

This is just a general guideline and does not include items damaged due to abuse and misuse.

Normal wear and tear items and components for this product are listed below.

- All types of filters
- All types of tubing
- All types of batteries, including lead acid/lithium, coin cell (watch type) and gel (6 months)

Sieve is a porous filtering material and is considered a wear item. Some factors that could affect sieve material life include humidity, temperature, particulates, air contaminates, air intake, vibration and other environmental conditions.

8 Troubleshooting

8.1 Troubleshooting

SYMPTOM	PROBABLE CAUSE	SOLUTION
Alarm: Short Beeps, long pause Concentrator not operating, power switch On. Beep...Beep...	**Main Power Loss:** 1. Power cord not plugged in. 2. No power at outlet. 3. Tripped circuit breaker.	1. Insert plug into outlet. 2. Inspect house circuit breakers or fuses. If problem recurs, use a different outlet. 3. Push/reset circuit breaker. If problem recurs, call service provider.
Alarm: Continuous Concentrator not operating, power switch On. Beep...	**System Failure:** 1. Unit overheating due to blocked air intake. 2. Insufficient power at outlet. 3. Internal repairs required.	1. a. Remove and clean cabinet filters. b. Move oxygen concentrator at least 12 in (30, 5 cm) away from walls, draperies or furniture. 2. DO NOT use extension cords. Move to another electrical outlet or circuit. 3. Call service provider.

SYMPTOM	PROBABLE CAUSE	SOLUTION
Alarm: YELLOW or RED light Illuminated. Alarm: Continuous On RED light i * Only applies to $SensO_2$ models.	**System Failure:** 1. Low oxygen purity.* 2. Kinked or blocked tubing, cannula or humidifier.* 3. Flowmeter set at 0.5 L/min*. 4. Unit overheating due to blocked air intake. 5. Insufficient power at outlet. 6. Internal repairs required.	1. Clean or Replace filters. 2. Inspect for kinks or blockages. Correct, clean or replace item. Once corrected, turn power Off for 60 seconds and then turn power back On. 3. Check flowmeter is set to 1.0 L/min or more. Refer to Typical Product Parameters. 4. a. Remove and clean cabinet filters. b. Move concentrator at least 12 in (30,5 cm) from walls, draperies, and furniture. 5. DO NOT use extension cords. Move to another electrical outlet or circuit. 6. Call Service Provider.
GREEN light with YELLOW Light Flashing.	1. Internal repairs required.	1. Call Service Provider.
Alarm: Rapid Beep...Beep... Beep...Beep	**Potential Obstruction Alert** 1. Possible internal obstruction in the oxygen path. Kinked or blocked tubing, cannula or humidifier. 2. Flowmeter set at 0.5 L/min.	1. Inspect for kinks or blockages. Correct, clean or replace item. Once corrected, turn power Off for 60 seconds and then turn power back ON. 2. Flowrates less than 1 L/min are not recommend. i The use of the pediatric flowmeter will deactivate the Potential Obstruction Alert.

9 Technical data

9.1 Typical Product Parameters

Electrical Requirements:	230 VAC + 10, –15% (253 VAC/195.5 VAC), 50 Hz
Rated Current Input:	1.4 A (IRC5LXO2AWQ)
	2.0 A (IRC5LXAW, IRC5LXO2AW)
	2.3 A (IRC9LXO2AWQ)
Sound Level:	39.5 dB Average
	44 dB Average (IRC5LXAW, IRC5LXO2AW)
	50 dB Average (IRC9LXO2AWQ)
Altitude:	Up to 1,828 m (6,000 ft) above sea level without degradation of concentration levels. NOT RECOMMENDED FOR USE ABOVE 1828 m (6,000 ft). Atmospheric Pressure Range: 101.33 kPa – 81.22 kPa
	For IRC9LXO2AWQ - Up to 4,000 ft (1230 m) above sea level without degradation of concentration levels. Atmospheric Pressure Range: 101.33 kPa – 88.0 kPa
*Oxygen Output Concentration Levels: All 5LXO2AWQ/5LXAW / 5LXO2AW /9LXO2AWQ models	IRC5LXAW, IRC5LXO2AW and IRC5LXO2AWQ 93% minimum at 1 to 3 L/min. 91% minimum at 4 L/min. 87% minimum at 5 L/min. (maximum recommended flow)

*Concentration levels achieved after initial warm-up period (approximately 30 minutes)	IRC9LXO2AWQ 92% minimum at 1 to 2 L/min. 93% minimum at 3 to 7 L/min. 91% minimum at 8 L/min. 87% minimum at 9 L/min.
Maximum Outlet Pressure:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 34.5 ± 3.45 kPa (5 ± 0.5 psi)
	IRC9LXO2AWQ 62.0 kPa ± 3.45 kPa (9 ± 0.5 psi)
Flow Range:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 0.5 to 5 L/min. Flowrates less than 1 L/min. are not recommended
	IRC9LXO2AWQ 1 L/min. to 9 L/min. Flowrates less than 1 L/min. are not recommended
Potential Obstruction Alert:	The concentrator detects a condition that may indicate a potential obstruction of the output oxygen. Rapid audible beeping alert (this alert is deactivated when accessories are connected). May be associated with flow setting of 0.5 L/min or less.
Average Power Consumption:	IRC5LXO2AWQ 300 W 280 W at 3 L/min.
	IRC5LXO2AW 365 W 340 W at 3 L/min.

	IRC5LXAW 380 W
	IRC9LXO2AWQ 460 W
Pressure Relief Mechanism Operational at:	241 kPa ± 24.1 kPa (35 psi ± 3.5 psi)
Change in maximum recommended flow when back pressure of 7kPa is applied:	0.7 L/min
Filters:	Cabinet (2), Outlet HEPA and Compressor Inlet
Safety System:	Current overload or line surge shutdown. High temperature compressor shutdown. High Pressure Alarm w/compressor shutdown. Low Pressure Alarm w/compressor shutdown. Battery Free Power Loss Alarm. SensO_2 Oxygen System Possible Obstruction Alert.
Width:	46.7 cm ± 1 cm (18 3/8 in ± 3/8 in)
Height:	67.0 cm ± 1 cm (26 3/8 in ± 3/8 in)
Depth:	36.5 cm ± 1 cm (14 3/8 in ± 3/8 in)
Weight:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 23.6 kg ± 1 kg (52 lbs ± 2 lbs)
	IRC9LXO2AWQ 24.0 kg ± 1 kg (53 lbs ± 2 lbs)

Shipping Weight:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 26.8 kg ± 1 kg (59 lbs ± 2 lbs)
	IRC9LXO2AWQ 27.2 kg ± 1 kg (60 lbs ± 2 lbs)
Operating Ambient Temperature:	10° C - 35° C (50° F - 95° F) at 20-60% relative humidity
Cabinet:	Impact Resistant flame-retardant plastic cabinet that conforms to UL 94–V0
Standards and Regulatory Listing:	IRC5LXAW/IRC5LXO2AW/ IRC5LXO2AWQ/IRC9LXO2AWQ ETL tested as complying with: EN55011 EN61000-3-2 EN61000-3-3 IEC 60601-1, A1, A2 IEC 60601-1-2
CE marking models:	IRC5LXO2AW, IRC5LXO2AWQ, IRC9LXO2AWQ ISO8359 MDD MDD 93/42/EEC
Electrical:	No extension cords

Placement:	No closer than 30,5 cm (12 in) from any wall, furniture, draperies, furniture or similar surfaces to assure sufficient air flow. Avoid deep pile carpets and heaters, radiators or hot air registers. Floor location only. No confined spaces (Example: No closets).
Tubing:	IRC5LXAW, IRC5LXO2AW, IRC5LXO2AWQ 2.1 m (7 ft) cannula with a maximum 15.2 m (50 ft) of Crush-Proof Tubing (DO NOT pinch)
	IRC9LXO2AWQ Recommended use up to 15.2 M (50 ft) high flow tubing with high flow cannula at all flow rates.
Relative Humidity:	20 to 60%
Time of Operation:	Up to 24 hours per day
Recommended Storage and Shipping Temperature:	-29° C to 65° C (-20° F to 150° F) at 15-95% relative humidity

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