User Manual Invacare[®] Perfecto,[™] Series Oxygen Concentrators with SensO, HomeFill[®] Compatible Model IRC5PO2AW Model IRC5PO2VAW English....I 0434 **)** Dealer: This manual MUST be given to the end INVACARE user. User: BEFORE using this product, read this manual and save for future reference. Yes, you can:

A WARNING

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 - otherwise, injury or damage may occur.

ACCESSORIES WARNING

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.

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 practicable.

Refer to <u>OPTIONAL ACCESSORIES</u> on page 31 for a list of additional accessories compatible with these models.

TABLE OF CONTENTS

ACCESSORIES	2
SPECIAL NOTES	4
Contraindications	5
LABEL LOCATION	6
SECTION I-GENERAL GUIDELINES	7
Operating Information	
Radio Frequency Interference	
SECTION 2-FEATURES	
SECTION 3—HANDLING	
Unpacking	
Inspection	
Storage	
SECTION 4-TECHNICAL DESCRIPTION	
Intended Use	
Technical Description	
SECTION 5-TYPICAL PRODUCT PARAME	
SECTION 6—OPERATING INSTRUCTIONS	
Introduction	
Select a Location	
Set Up	
Flowrate	
SensO, Oxygen Purity Indicator	
Initial Startup of the Concentrator	
Elapsed Time Meter (Hour Meter)	
SECTION 7-MAINTENANCE	
Routine Maintenance	
SECTION 8-TROUBLESHOOTING GUIDE	
SECTION 9-OPTIONAL ACCESSORIES	
RECYCLING INFORMATION	-
CUSTOMER SERVICE AND WARRANTY	
INFORMATION	210

SPECIAL NOTES

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

SIGNAL WORD	MEANING
	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 indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both.

NOTICE

The information contained in this document is subject to change without notice.

A DANGER

DO NOT SMOKE while using this device. Keep all matches, lit cigarettes or other sources of ignition out of the room in which this product is located and away from where oxygen is being delivered.

NO SMOKING signs should be prominently displayed. Textiles and other materials that normally would not burn are easily ignited and burn with great intensity in oxygen enriched air. Failure to observe this warning can result in severe fire, property damage and cause physical injury or death.

▲ CAUTION

"Caution: Statutory law can restrict this device to sale by or on order of a physician, or any other practitioner licensed by the law of the governmental agency in which he/she practices to use or order the use of this device."

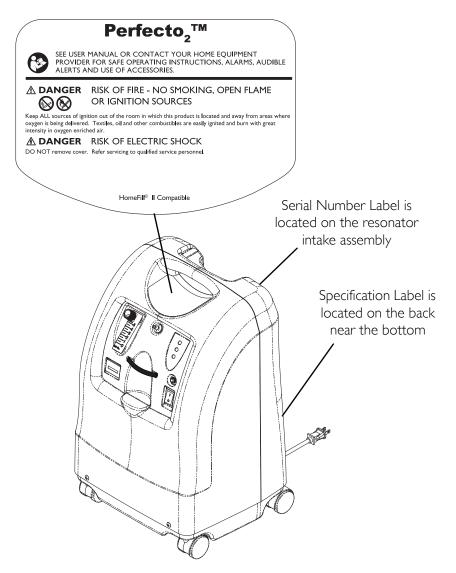
Invacare recommends an alternate source of supplemental oxygen in the event of a power outage, alarm condition or mechanical failure. Consult your physician or equipment provider for the type of reserve system required.

This equipment is to be used as an oxygen supplement and is not considered life supporting or life sustaining.

Contraindications

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

LABEL LOCATION



SECTION I — GENERAL GUIDELINES

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

A WARNING

This section contains important information for the safe operation and use of this product.

A DANGER

Risk of electric shock. DO NOT disassemble. Refer servicing to qualified service personnel. No user serviceable parts. TO REDUCE THE RISK OF BURNS, ELECTROCUTION, FIRE OR INJURY TO PERSONS.

Avoid using while bathing. If continuous usage is required by the physician's prescription, the concentrator MUST be located in another room at least 2.5 m (7 ft) from the bath.

DO NOT come in contact with the concentrator while wet.

DO NOT place or store product where it can drop into water or other liquid.

DO NOT reach for product that has fallen into water. Unplug IMMEDIATELY.

If the concentrator has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water, call qualified technician for examination and repair.

A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. These substances MUST be kept away from the oxygen concentrator, tubing and connections, and all other oxygen equipment. DO NOT use any lubricants unless recommended by Invacare.

Avoid creation of any spark near medical oxygen equipment. This includes sparks from static electricity created by any type of friction.

Operating Information

For optimum performance, Invacare recommends that each concentrator be on and running for a minimum of 30 minutes at a time. Shorter periods of operation may reduce maximum product life.

Keep the oxygen tubing, cord, and unit 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.

DO NOT move or relocate concentrator by pulling on the power cord.

NEVER drop or insert any object or liquid into any opening.

Invacare recommends that Crush-Proof oxygen tubing be used with this product and not exceed 15.2 m (50 ft) in length.

There are no user serviceable parts. This does not include normal maintenance items. See maintenance section for user maintenance items.

A product should NEVER be left unattended when plugged in. Make sure the Perfecto, is Off when not in use.

Close supervision is necessary when this product is used near children or physically-challenged individuals.

Additional monitoring or attention may be required for patients using this device who are unable to hear or see alarms or communicate discomfort.

DO NOT connect the concentrator in parallel or series with other oxygen concentrators or oxygen therapy devices.

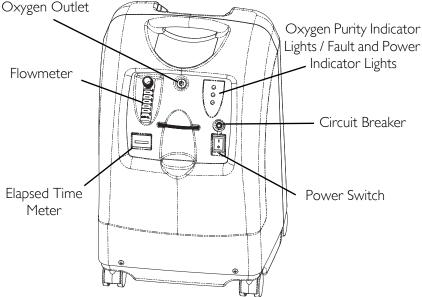
Radio Frequency Interference

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.

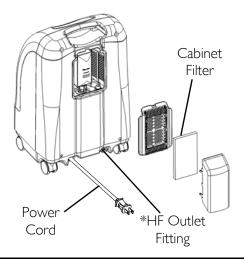
Other devices may experience interference from even the low levels of electromagnetic emissions permitted by the above standards. To determine if the emissions from the Perfecto₂ is causing the interference, turn the Perfecto₂ Off. If the interference with the other device(s) stops, then the Perfecto₂ 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.

SECTION 2—FEATURES



REAR VIEW



*NOTE: This 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 owner's manual, part number 1145804, 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.

Perfecto₂[™] **Series**

SECTION 3—HANDLING

The concentrator should ALWAYS be kept in the upright position to prevent cabinet damage while being transported.

If the concentrator is to be reshipped by common carrier, additional cartons are available from Invacare.

Unpacking

NOTE: For this procedure, refer to FIGURE 3.1.

- 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 the concentrator, power cord, air inlet scoop, assembly instructions, humidifier, cannula, labels and user manual from the carton.

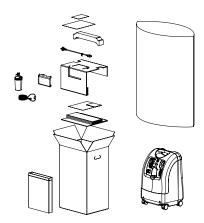


FIGURE 3.1 Unpacking

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

Inspection

1. Inspect/examine exterior of the oxygen concentrator for nicks, dents, scratches or other damages. Inspect all components.

Storage

- 1. Store the repackaged oxygen concentrator in a dry area.
- 2. DO NOT place objects on top of repackaged concentrator.

Part No 1163145

SECTION 4-TECHNICAL DESCRIPTION

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.

Technical Description

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 Perfecto₂ 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 Perfecto₂ 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.

NOTE: Both concentrator models (IRC5PO2AW and IRC5PO2VAW) have identical operating parameters with the exception of the product weight and power consumption. Refer to <u>TYPICAL PRODUCT PARAMETERS</u> on page 13.

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

SECTION 5-TYPICAL PRODUCT PARAMETERS

NOTE: All parameters apply to both concentrator models (IRC5PO2AW and IRC5PO2VAW) unless otherwise specified.

\sim	Alternating Current
×.	Type BF equipment
I	Unit running
0	Unit not running
\wedge	Attention - Consider Accompanying Documents
	DO NOT smoke
	Class II, Double Insulated
IPX1	Protected against dripping water
\otimes	No Flame
A	Risk of Electric Shock
CE	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.
Electrical Requirements:	230 VAC ± 10% (253 VAC/207 VAC), 50 Hz
Rated Current Input:	1.5 A
Sound Level:	40 dBA max

Altitude:	Up to 6,000 ft (1828 meters) above sea level without degradation of concentration levels. Not recommended for use above 6000 ft (1828 meters). Atmospheric pressure range: 101.33kPa - 81.22kPa	
Oxygen Output Concentration Levels:	87% to 95.6% @ 0.5 to 5 L/min 93% ± 3% @ 2 L/min NOTE: Stated concentration levels achieved after initial warm-up period (approximately 30 minutes).	
Maximum Outlet Pressure:	34.5 kPa ± 3.45 kPa (5 psi ± 0.5 psi)	
Low Flow Alarm:	0.5 to 5 L/min (maximum). For flowrates less than 1 L/min, we recommend the use of the Invacare Pediatric Flowmeter Accessory (IRCPF16AW).	
Potential Obstruction Alert	0 L/min to 0.5 L/min 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.	
Power Consumption:	$\begin{array}{l} Perfecto_2AW \ \text{- } \ 300 \ W \ \textcircled{0} \ 5 \ L/min, \ 280 \ W \ \textcircled{0} \ \leq \ 3 \ L/min \\ Perfecto_2VAW \ \text{- } \ 320 \ W \ \textcircled{0} \ 5 \ L/min \end{array}$	
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, 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. SensO2 Oxygen System Possible Obstruction Alert.	
Width:	38.1 cm ± 1 cm (15 in ± 3/8 in)	
Height:	58.4 cm ± 1 cm (23 in ± 3/8 in)	
Depth:	30.5 cm ± 1 cm (12 in ± 3/8 in)	

Weight:	Perfecto ₂ AW - 20.5 kg \pm I kg (45 lbs \pm 2 lbs) Perfecto ₂ VAW - 18.1 kg \pm I kg (40 lbs \pm 2 lbs)	
Shipping Weight:	Perfecto ₂ AW - 22.7 kg \pm 1 kg (50 lbs \pm 2 lbs) Perfecto ₂ VAW - 20.4 kg \pm 1 kg (45 lbs \pm 2 lbs)	
Operating Ambient Conditions:	10°C - 35°C (50°F - 95°F) at 20-60% relative humidity	
Exhaust Cooling Air Temperature:	Less than Ambient +19°C (+ 45°F)	
Oxygen Output Temperature:	Less than Ambient +3°C (+ 8°F)	
Cabinet:	Impact Resistant flame-retardant plastic cabinet that conforms to UL 94-V0.	
No AP/APG	Not suitable for use in the presence of a flammable anaesthetic mixture.	
Standards and Regulatory Listing:	IEC/EN61000-3-2 IEC/EN61000-3-3, IEC/EN 60601-1, A1, A2 IEC/EN 60601-1-2 ISO8359 MDD 93/42/EEC, Annex I and IX	
CE marked model	IRC5PO2AW / IRC5PO2VAW	
Electrical:	No extension cords.	
Placement:	No closer than 30.5 cm (12 in) from any wall, furniture, draperies, or furniture to assure sufficient air flow. Avoid deep pile carpets and heaters, radiators or hot air registers. Floor location only.	
Tubing:	2 m (7 ft) cannula with a maximum 15 m (50 ft) of Crush-Proof Tubing (DO NOT pinch).	
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.	
Environment:	Smoke and soot-free. No confined spaces (Example: No closets).	
Minimum Operating Time:	30 Minutes	

SECTION 5-TYPICAL PRODUCT PARAMETERS

O2 INDICATORS

LABEL SYMBOL	O ₂ PURITY	INDICATOR LIGHTS (LED)
O ₂	SYSTEM OKAY O ₂ over 85%	GREEN Indicator Light
Â	O ₂ Between 73% to 85%	YELLOW Indicator light A. YELLOW Solid B. YELLOW Flashing Sensor Failure Call a qualified technician.
â	SYSTEM FAILURE O ₂ Below 73%	RED Indicator Light Continuous Audible Alarm Sieve-GARD Compressor Shutdown

SECTION 6-OPERATING

Introduction

Your oxygen concentrator is intended for individual use. 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 owner's manual will tell you about your concentrator and will serve as a reference as you use your concentrator.

Select a Location

A WARNING

NEVER block the air openings of the product 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 the like.

Move oxygen concentrator at least 30.5 cm (12 in) away from walls, draperies or furniture.

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.

SECTION 6—OPERATING INSTRUCTIONS

Your oxygen concentrator will perform best when operated under the conditions outlined in the <u>Typical Product</u> <u>Parameters</u> on page 13. 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.

Set Up

- 1. Plug in power cord to an electrical outlet.
- 2. Connect Humidifier (If So Prescribed).

DO NOT fill humidifier bottle with hot water. Allow boiled water to cool to room temperature before filling.

DO NOT overfill humidifier.

DO NOT reverse the oxygen input and output connections. Water from the humidifier bottle will travel through the cannula back to the patient.

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.

NOTE: For this procedure, refer to FIGURE 6.1, FIGURE 6.2 on page 19, FIGURE 6.3 on page 21.

- 1. Remove cap from bottle.
- 2. Fill humidifier 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. Replace the humidifier cap and securely tighten.



FIGURE 6.1 Filling the Humidifier

- 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 (FIGURE 6.2).
- 4. Pull up and remove the humidifier bottle adapter (FIGURE 6.2).
- 5. Replace the filter access door and install the air scoop onto the filter access door by inserting the six tabs on the air scoop into the six slots on the sides of the filter access door.

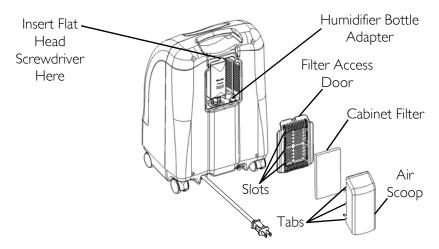


FIGURE 6.2 Humidifer Bottle Adapter

6. Attach the humidifier bottle adapter to the humidifier bottle by turning the wing nut on the humidifier bottle counterclockwise until it is securely fastened. See Detail "A" in FIGURE 6.3.

SECTION 6—OPERATING INSTRUCTIONS

7. Select the location for the humidifier bottle/adapter assembly:

•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. See Detail "B" in FIGURE 6.3.

•To position the humidifier bottle in a patient side location, place the humidifier bottle/adapter assembly in the humidifier bottle holder (M1521, Refer to <u>Optional Accessories</u> on page 31) and place on a flat surface as close to the patient as possible. Attach an oxygen tubing connector (MS4301, Refer to <u>Optional Accessories</u> on page 31) to the end of the humidifier bottle/adapter tube. Connect one end of the oxygen supply tubing (MS4107 or MS4121, Refer to <u>Optional Accessories</u> on page 31) to the free end of the oxygen tubing connector and the opposite end to the oxygen outlet connector on the concentrator.

NOTE: 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.

- 8. Attach the patients' nasal cannula supply tube to the humidifier bottle outlet. See Detail "B" in FIGURE 6.3.
- 9. After assembly, ensure that oxygen is flowing through the nasal cannula.

SECTION 6—OPERATING INSTRUCTIONS

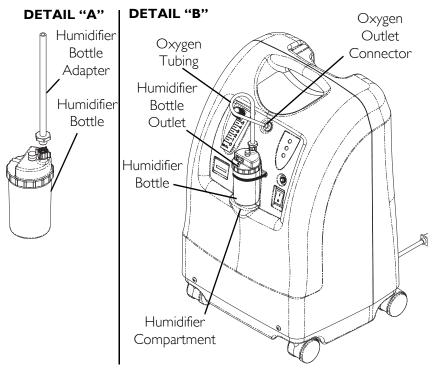


FIGURE 6.3 Humidifier Compartment

Power Switch

NOTE: For this procedure, refer to FIGURE 6.4.

 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.

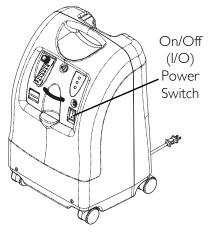


FIGURE 6.4 Power Switch

Flowrate

NOTE: For this procedure, refer to FIGURE 6.5.

NOTE: Take care not to set the flow above RED ring. An oxygen flow greater than 5 L/min will decrease the oxygen concentration.

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

A WARNING

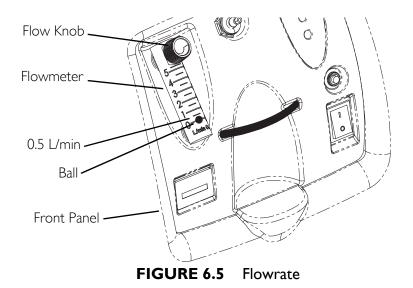
DO NOT change the L/min setting on the flowmeter unless a change has been prescribed by your physician or therapist.

NOTE: 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.

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

2. If the flowrate on the flowmeter ever falls below 0.5 L/min 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 between 0.5 L/min and 0.75 L/min, the Potential Obstruction Alert will turn off.

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



SensO₂ 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

NOTE: Concentrator may be used during the initial start 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/O₂ 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

NOTE: For this procedure, refer to FIGURE 6.6 on page 24.

GREEN light (O_2) - Normal Operation.

YELLOW light (\triangle) - Immediately call supplier. You may continue to use the concentrator unless instructed otherwise by your supplier. Be certain that backup oxygen is nearby.

RED light (\triangle) - Total unit shutdown. Immediately switch to backup oxygen supply and call supplier.

GREEN light - with YELLOW light flashing - Immediately call supplier. Oxygen sensor malfunctioning; you may continue to use the concentrator.

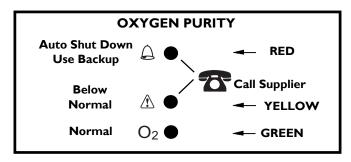


FIGURE 6.6 Explanation of Oxygen Purity Indicator Lights

Elapsed Time Meter (Hour Meter)

The hour meter displays the cumulative number of hours the unit has operated. Reference <u>Features</u> on page 10 for specific location.

SECTION 7-MAINTENANCE

A WARNING

The Invacare concentrators are specifically designed to minimize routine preventive maintenance. Only qualified personnel should perform preventive maintenance on the concentrator.

Unplug the concentrator when cleaning. To avoid electrical shock, DO NOT remove cabinet.

NOTE: 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 <u>Preventive Maintenance Record</u> on page 28.

Routine Maintenance

Cleaning the Cabinet Filter

A CAUTION

DO NOT operate the concentrator without the filter installed.

NOTE: For this procedure, refer to FIGURE 7.1 on page 26.

NOTE: There is one cabinet filter located on the back of the cabinet.

1. Remove the filter and clean as needed.

NOTE: 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 in warm soapy water and rinse thoroughly.
- 3. Dry the filter thoroughly before reinstallation.

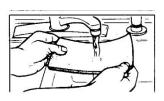




FIGURE 7.1 Cleaning the Cabinet Filter

Cleaning the Cabinet

1. Clean the cabinet with a mild household cleaner and non-abrasive cloth or sponge.

Humidifier Cleaning and Thermic Disinfection

NOTE: 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. Immerse humidifier completely in water at 65°C for 15 minutes.
- 4. Air dry thoroughly.

NOTE: To limit bacterial growth, air dry the humidifier thoroughly after cleaning when not in use. Refer to <u>Set Up</u> on page 18 for use.

Cleaning and Disinfection Between Patients

∆ WARNING

ONLY qualified personnel should perform cleaning and disinfection of the concentrator and accessories between patients.

NOTE: 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 <u>*Routine Maintenance*</u> on page 25 and Preventive Maintenance on page 28, as applicable.
- 3. Check concentrator for possible external damage or signs that 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.

MODEL NO. IRC _ SERIAL NO. Yes, you can **PREVENTIVE MAINTENANCE RECORD** DURING PREVENTIVE MAINTENANCE SCHEDULE, OR BETWEEN PATIENTS VOTE: 26,280 hours are equivalent to usage 24 hours per day, 7 days per week, for 3 years. NOTE: Refer to Preventive Maintenance section of Service Manual. UNITS WITH Senso, - EVERY 26,280 HOURS Record Elapsed Hours On Hour Meter Check Prescribed L/min. Flow Rate Check Compressor Inlet Filter* Clean/Replace Cabinet Filter(s) Check Oxygen Concentration **ON EACH INSPECTION** Check Outlet HEPA Filter* Check Power Loss Alarm Record Date of Service Clean Cabinet Filter(s)

FIGURE 7.2 Preventive Maintenance Record

SECTION 8—TROUBLESHOOTING GUIDE

SYMPTOM:	PROBABLE CAUSE:	solution:
Alarm:	Main Power Loss:	
Short beeps, long pause	I. Power cord not plugged in.	I. Insert plug into outlet.
Concentrator not operating, power switch On.	2. No power at outlet.	2. Inspect house circuit breakers or fuses. If problem recurs, use a different outlet.
ВеерВеер	3. Tripped circuit breaker.	3. Push/reset circuit breaker. If problem recurs, call Service Provider.
Alarm: Continuous	System Failure: I. Unit overheating due to blocked air intake.	Ia. Remove and clean cabinet filters.
Concentrator not operating, Power Switch On.	2. Insufficient power at outlet.	Ib. Move oxygen concentrator at least twelve inches away from walls, draperies or furniture.
Beeeeeeep	3. Internal repairs required.	 DO NOT use extension cords. Move to another electrical outlet or circuit. Call Service Provider.

SECTION 8-TROUBLESHOOTING GUIDE

SYMPTOM:	PROBABLE CAUSE:	SOLUTION:
YELLOW or RED	I. Low oxygen purity.*	I. Clean or Replace filters.
light Illuminated. Alarm: Continuous On RED light only.	2. Kinked or blocked tubing, cannula or humidifier.*	 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. Flowmeter set at 0.5 L/min *.	3. Check flowmeter is set to 1.0 L/min or more. Refer to <u>Typical Product Parameters</u> on page 13.
* Only applies to IRC5PO2AW models.	4. Unit overheating due to blocked air intake.	 4a. Remove and clean cabinet filters. 4b. Move concentrator at least twelve inches from walls, draperies, and furniture.
	5. Insufficient power at outlet.	5. DO NOT use extension cords. Move to another electrical outlet or circuit.
	6. Internal repairs required.	6. Call Service Provider.
GREEN light with YELLOW Light Flashing.	I. Internal repairs required.	I. Call Service Provider.
Alarm: Rapid BeepBeep BeepBeep	Potential Obstruction Alert Ia. Possible internal obstruction in the oxygen path.	Ia. Inspect for kinks or blockages. Correct, clean or replace item. Once corrected, turn power Off for 60 seconds and then turn power back ON.
	Ib. Kinked or blocked tubing, cannula or humidifier.	Ib. Flowrates less than I L/min are not recommend. NOTE: The use of the
	I c. Flowmeter set at 0.5 L/min.	pediatric flowmeter will deactivate the Potential Obstruction Alert.

SECTION 9-OPTIONAL ACCESSORIES

The following optional accessories are also available:

- Standard Adult Nasal Cannula, 2.1 m (7 feet) M3120
- Standard Humidifier Invacare Part #1155719
- PreciseRX[™] Pediatric Humidifier/Flowmeter Accessory - IRCPF16AW
- HomeFill home oxygen compressor IOH200AW
- Humidifier Bottle Holder M1521
- Oxygen Supply Tubing 2.1 m (7 feet) MS4107
- Oxygen Supply Tubing 6.3 m (21 feet) MS4121
- Oxygen Tubing Connector MS4301

RECYCLING INFORMATION

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE.

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.

The 'crossed out wheelie bin' symbol is placed on this product to encourage you to recycle wherever possible.



Please be environmentally responsible and

recycle this product through your recycling facility at its end of life.

Invacare Corporation



Yes, you can:

USA One Invacare Way Elyria, Ohio USA 44036-2125 440-329-6000 800-333-6900 Technical Services 440-329-6593 800-832-4707



Invacare Deutschland GmbH Kleiststraße 49, D-32457 Porta Westfalica Tel: (49) (0) 5731 754 0 Fax: (49) (0) 5731 754 52191



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Manufacturer: Invacare Rehabilitation Equipment (Suzhou) Co., Ltd. No. 5 Weixi Road, SIP, Suzhou, Jiangsu, PRC 215121 Tel: 86-512-62586180 Fax: 86-512-62586167



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Part No 1163145



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