



USER MANUAL

5L Oxygen Concentrator

MODEL # OC5L

**DO NOT OPERATE THIS UNIT WITHOUT FIRST
READING THIS MANUAL!**

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1. Safety Notes

⚠ WARNING: Users who require continuous oxygenation must plan for alternate reserve sources of power and oxygen in the event of a failure or loss of power and oxygen. This device is to be used as an oxygen supplement and is NOT considered life-supporting or life-sustaining!

SYMBOLS CONTENTS

- | | |
|---|--|
| ⚠ | Describes the principal RISK(S) foreseen (e.g. "Causes burns", "Risk of explosion", etc.). |
| ⊘ | Describes what is prohibited (e.g. "Do not open", "Do not drop", etc.). |
| ❗ | Describes required action (e.g. "Wear protective gloves", "Scrub before entering", etc.). |

1.1 IMPORTANT INFORMATION

⚠ Risk of electric shock.

⊘ DO NOT disassemble. Refer servicing to a qualified service personnel.

⊘ DO NOT modify this equipment without authorization from the manufacturer.

Read the following information before operating this product.

❗ 1.2. Before Installation

- ❗ The concentrator should always be kept in the upright position to prevent damage during transport.
- ❗ If the electrical power source becomes unstable, discontinue use and find an alternate source.
- ❗ Only use stable and safe electrical power sources.
- ❗ The oxygen concentrator cabinet should ONLY be opened by an authorized authorized equipment provider.

1.3 Placement

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

⊘ Do not place the oxygen concentrator in surroundings where airflow is obstructed.

❗ Be certain to place the oxygen concentrator in a position where all sides are at least 4 inches (10 cm) away from walls, draperies, furniture, or similar surfaces. Avoid deep pile carpets and heaters, radiators or hot air registers.

1. Safety Notes

- ⊘ Do not place the unit in a confined area.
- ❗ The oxygen concentrator MUST be kept away from heat, fire and excessive water sources and conditions.
- ❗ The oxygen concentrator should be located in an area so as to avoid pollutants or fumes.
- ⊘ Do Not place any items on top of the concentrator.
- ⊘ NEVER block the air openings of the unit or place it on a soft surface, such as a bed or couch, where the concentrator may tip or fall. Keep the openings free from lint, hair and the like.

1.4 Fire Warning and Explosion

- ❗ Keep the concentrator away from flammable and explosive areas.
- ⊘ Users MUST NOT SMOKE while using this device. Keep all matches, lighted cigarettes or other sources of ignition out of the room in which this product is located. 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.
- ⚠ The use of oxygen therapy requires that special care be taken to reduce the risk of fire. Any materials that will burn in air, and some that will not, are easily ignited and burn rapidly in high concentrations of oxygen. For safety concerns, it is necessary that all sources of ignition be kept away from the product and preferably out of the room in which it is being used.
- ⚠ 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 manufacturer.

1.5 Maintenance

- ⚠ The oxygen concentrator should be maintained at the minimum once a year. Maintenance on this product should only be done by the manufacturers authorized representative familiar with the operation and maintenance of this device.
 - ⊘ DO NOT service or maintain this device while in patient-use.
- For optimum performance we recommend the concentrator be on and running for a minimum of 30 minutes at a time. Shorter periods of operation may reduce maximum product life.

1.6 Radio Frequency Interference

- ⚠ Most electronic equipment is influenced by Radio Frequency Interference (FRI). Always exercise CAUTION with regard to the use of portable communications equipment in the area around such equipment.

1. Safety Notes

⚠ Energy of Radio Frequency of this machine is just for device operation use, so low Radio Frequency will not affect the running of other electric equipment around regard to the use of portable communications equipment in the area around such equipment.

1.7 To Reduce the Risk of Burns, Electrocutation, Fire or Injury to Persons.

- ⚠ Avoid using this device while bathing. If continuous usage is required by the physician's prescription, the concentrator must be located in another room at least 8.2 feet (5.2 meter) from the bathtub.
- ⊘ DO NOT come in contact with the concentrator while wet.
- ⊘ DO NOT place or store this device where it may drop into water or other liquid.
- ⊘ DO NOT reach for this device if it has fallen into water. UNPLUG IMMEDIATELY and call an Authorized Service Representative for examination and repair.
- ⓘ This device should NEVER be left unattended while plugged in.
- ⚠ This device is to be used only in accordance with the prescription of a physician and according to the directions in this User Manual. If at any time the patient or attendant concludes the patient is receiving an insufficient amount of oxygen, contact the provider and/or physician immediately. No adjustments should be made to the flow rate unless prescribed by a physician.
- ⓘ Extra supervision is necessary when this device is used near children or physically-challenged individuals.
- ⓘ Use this device only for intended use as described in this manual.
- ⊘ DO NOT use parts, accessories or adapters other than those authorized by the manufacturer.
- ⊘ DO NOT use certain humidifiers and administration accessories not specified for use with this oxygen
- ⊘ If replacement parts used for the periodic servicing by an approved technician do not comply with the manufacturer's specifications, the manufacturer is not liable in the event of an accident.
- ⊘ DO NOT connect the concentrator in parallel or series with other oxygen concentrators or oxygen therapy devices.
- ⚠ In certain circumstances oxygen therapy can be hazardous. It is recommended that you seek medical advice before using this product.
- ⚠ Avoid creation of any spark near medical oxygen equipment. This includes sparks from static electricity created by any type of friction. If the concentrator has a damaged cord or plug, is not working properly and/or has been dropped or damaged, please call an Authorized Service Representative for examination and repair.
- ⓘ Keep the cord away from HEATED or HOT surfaces.
- ⊘ Do not move or relocate the concentrator by pulling on the cord.
- ⊘ NEVER drop or insert any object into any opening.

2. Features

2.1 Summary

The Medacure oxygen concentrator is intended for individual use as an oxygen supplement device in a home or care facility. The patient is an intended operator. It is an electronically operated device that separates oxygen from ambient air. It provides high concentration of oxygen directly to the user through a nasal cannula or other method.

2.2 Characteristics

- The oxygen concentrator is composed of a mainframe, humidifier and flow meter
- A complete plastic outer shell, that is reliable & safe.
- The display screen shows the total elapsed working hours.
- The pressure safety valve helps ensure operating pressure.
- Power loss alarm function.
- High and low pressure alarm function.
- Low oxygen concentration alarm function.
- Heat protection to ensure the safety of the compressor and concentrator.

2.3 Specifications

1. Power supply: AC120V, 60Hz; Current:3.5A; Power: 390VA
2. Sound level: $\leq 50\text{dB (A)}$
3. Maximum Recommended Flow: 5L/min
4. Flow Range at Outlet Pressure of zero: 0.5~5L/min
Flow Range at Outlet Pressure of 7kPa: 0.5~5L/min
Change in maximum recommended flow when back pressure of 7kPa is applied: $< 0.5\text{ L/min}$
5. Oxygen Concentration : When 0.5~5L/min , $93\%\pm 3\%$ (after the device is running for 5 minutes)
6. Output Pressure : $38\text{kPa}\pm 5\text{kPa}$
7. Release Pressure by machine operation : $250\text{kPa}\pm 50\text{kPa}$
8. Weight: 35.5 lbs. / 16.1 kg.
9. Dimension: 13" x 10" x 21" / 330x260x540 mm
10. Height above Sea Level: The oxygen concentration will not decrease at 6,000 feet (1,828 meter) height above sea level. From 6,000 feet to 13,123 feet (1,828 meter to 4000 meter), the efficiency will decrease to less than 90%

2. Features

11. Safety System:

- Current overload or line surge shutdown.
- High temperature compressor shutdown.
- High pressure alarm shutdown.
- Low Pressure alarm shutdown.
- Low Oxygen Concentration alarm.

12. Minimum Operating Time: 30 minutes

13. Electric Classification: Class II equipment , Type BF applied part (Nasal oxygen cannula);

14. Mode of Operation: Continuous duty

15. Normal Operating Ambient:

1. Temperature Range: 41°F~104°F / 5°C~40°C

2. Relative Humidity: ≤80%

3. Atmospheric pressure: 12.47psi~15.37psi / 86kPa~106kPa

NOTE: 1. When the storage temperature is lower than 41°F / 5°C, the equipment should be placed in a normal operation temperature environment for at least 4 hours.

2. The life time & efficiency of the equipment will be affected and lowered if the equipment runs under conditions exceeding normality.

16. Oxygen Output Temperature: Less than Ambient 43°F / +6°C

17. Tube: To prevent folding of tube, nasal oxygen should be 6.5 feet /2 meters and the prolonged tube should not be longer than 50 feet/ 15.2 meters (no flattening).

18. The Storage and transport Ambient:

1. Temperature Range: 32°F~+131°F / 0°C+55°C

2. Relative Humidity Range: 10%~90%

3. Atmospheric Pressure: 10.2psi~15.37psi / 70kPa~106kPa

NOTE: The oxygen concentrator should be stored in an area without eroded gas.

Avoid shaking and inverting the concentrator when transporting.

3. Handling

3.1 Unpacking

NOTE: Unless the oxygen concentrator is to be used immediately, retain containers and packing materials for storage until concentrator is in use.

- Check for any obvious damage to the carton or its contents. If damage is noted, please notify the carrier or local dealer immediately.
- Remove all loose packing from the carton.
- Carefully remove all components from the carton.

3.2 Inspection

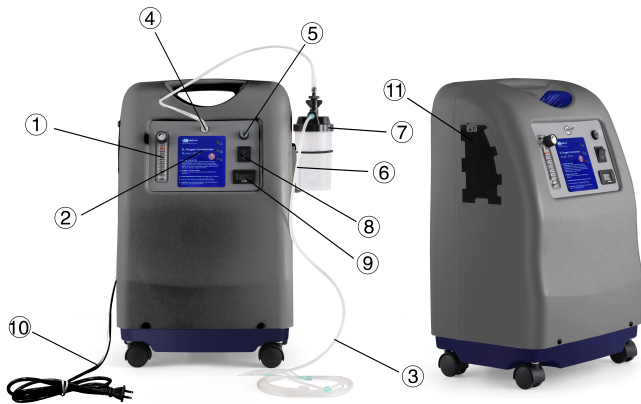
- Examine exterior of the oxygen concentrator for nicks, dents, scratches or other damages.
- Carefully inspect all components.

3.3 Storage

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

4. Installation & Operation

4.1 Features & Functions



1. Flow meter - Set the oxygen flow rate by adjusting the knob.
2. Status Indicator Light (Alarm/Normal Low)
3. Oxygen tube
4. Outlet connector
5. Circuit Breaker

To protect the machine and user, the circuit breaker will cut off power automatically when current $\geq 6A$. After cooling, push up the circuit breaker and the concentrator can be turned on.

6. Connect the pipe of the humidifier bottle
7. The Humidifier Bottle - For some users, dry oxygen inhalation may cause respiratory discomfort. Use the humidifier bottle to humidify the oxygen.
8. Power Switch
9. Elapsed Time Meter- records the total operation and use time.
10. Power cord
11. Cabinet Filter

FIGURE # 1: OXYGEN CONCENTRATOR FEATURES



FIGURE # 2: HUMIDIFIER FEATURES

4. Installation & Operation

⊘ DO NOT add water above the maximum water level. Pure water shall be added in humidifier between the maximum and minimum water level in use.

- Power switch —| indicates that the power is on. ○ indicate the power is off.
- If power is lost while the oxygen concentrator is on it will not run and the alarm will sound.
- The oxygen is obtained by passing through the humidifier. Pure water should be added to the humidifier. When the tube of oxygen exits the humidifier, the pressure in the humidifier will ascend to $25\pm 5\text{kPa}$ and the safety valve of the humidifier will open to release the pressure.

Inspection of humidifier performance:

1. Use the PVC soft tube to connect the humidifier adapter to the oxygen outlet
2. Turn on the oxygen concentrator and adjust the flux to about 5L/ min. Jam the exit of humidifier and after about 5 seconds the safety valve will open and the gas will release and the valve will close, which indicates that the gas proofing of the humidifier and safety valve is conforming.

4.2 Preparation

- Unscrew the cover of the humidifier. Fill the humidifier bottle between the maximum and minimum water level lines with purified water (or distilled water). Screw the cover onto the humidifier bottle. (If needed, add medication now to the water according to the physicians's recommendations.)
- Screw the humidifier bottle absorption connector onto the cover of the humidifier, and insert the humidifier to the elastic belt located on the left side of the unit. Connect the other end of the cannula to the oxygen outlet.
- Plug in power supply. Ensure that the power switch is off. Plug the concentrator's AC connector into the power outlet.

4.3 Starting up the Concentrator

- Press the power switch to the "I" position. A green and yellow light will be displayed. This indicates that the function of the device is normal. After about 1 second only the green light will remain on. After 4 seconds the display screen of elapsed time meter shows total elapsed working hours.
- To properly read the flow meter locate the prescribed flow rate line on the flow meter. Next, turn the flow knob until the ball rises to the line. Lastly, center the ball on the L/min. line as prescribed (Figure 3).

NOTE: Oxygenation times and flow rate ranges are established and prescribed by your physician.

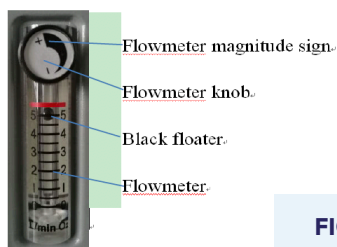


FIGURE # 3

4. Installation & Operation

⚠ CAUTION: If the flow rate on the flow meter falls below 0.5L/min, check the tubing or accessories for blocked or kinked tubing and check for a defective humidifier bottle.

4.4 Alarm Signal

- Initial Startup of the Concentrator

NOTE: Concentrator may be used during the initial start warm-up time (approximately 30 minutes), while waiting for the O₂ concentration to reach maximum.

When the unit is turned on the green light will appear (O₂ concentration greater than 82%±3%). After 5 minutes, the oxygen sensor will operate normally and will control the indicator lights depending on the oxygen concentration values.

4.5 Alarm Signal cue






















1. O₂ concentration is greater than 85%±2%. Green light illuminates. Normal Operation.
2. O₂ concentration is greater than 73%± 2% and less than 85%±2%. Yellow light illuminates.
3. O₂ concentration is less than 73%±2%. Red light illuminates and intermittent audible alarm sounds.

4.6 Turning the Concentrator Off

Press the power switch to the " O " position and unplug the concentrator's AC connector from the power outlet. Use the plug device to isolate the concentrator from the supply mains.

4. Installation & Operation

4.7 Symbols and Descriptions

SYMBOL	MEANING	SYMBOL	MEANING
	Alternating Current		It is mandatory to read and Understand the operating instructions prior to use. This symbol has a blue background on the product label.
	Class II Equipment		Type BF Applied Part
	OFF (power)		ON (power)
	Circuit Breaker		No Open Flame; Fire, Open Ignition Source & Smoking Prohibited
	Height		Consult instructions for use
	Serial Number		Date of Manufacture
	Up		Manufacturer
	Keep Dry		Storage ambient temperature Range 0 to 55°C (+32°F to 131°F)
	Fragile, Handle With Care		Atmospheric Pressure Limitation
	LOT Number		Indicates a medical device that has not been subjected to a sterilization process.
	This device contains electrical and/or electronic equipment that must be recycled per EU Directive 2012/19/EU-Waste Electrical and Electronic Equipment (WEEE)		

5. Maintenance

⚠ WARNING: Power should be disconnected before performing maintenance on the concentrator.

Ⓞ DO NOT service or conduct maintenance while in patient-use. The concentrator does not require extra approved maintenance. The unit is equipped with a pressure and oxygen purity self-check function. However, regular maintenance should be performed annually. Do not place the concentrator in a dusty location.

5.1 Cleaning the Cabinet

- Turn off the power switch and unplug the concentrator's AC connector from the power outlet.
- Clean ONLY the outside of the concentrator. Use a soft, dry cloth, a damp sponge or alcohol solution based wipes. Do not use acetone, solvents or any other inflammable products. Do not pour liquid into the cabinet. This may damage the unit and void the warranty.

5.2 Cleaning or Replacing the Filter (3 Types)

Clean and replace the filters as outlined in the following paragraphs in order to protect the compressor and extend the concentrator's life.

Ⓞ DO NOT operate the concentrator without the filters installed or when filters are wet. These actions could permanently damage the concentrator and void the warranty.

- Disassembly

Cabinet Filter: The cabinet filter should be inspected periodically and cleaned as needed by the user or caregiver. Replace if torn or damaged.

To clean, these steps should be followed:

NOTE: Frequency of inspection and cleaning of filter may be dependent upon environmental conditions like dust and lint.

1. Use a small cross screwdriver to unscrew the block of cabinet filter holder, remove the cabinet filter holder from access door.
2. Separate holder elements and take the filter out.
3. Wash in a solution of warm water and dish washing soap.
4. Rinse thoroughly with warm tap water and blow dry. The filter should be completely dry before reinstalling. (Figure 5)

Cabinet Filter



FIGURE # 4

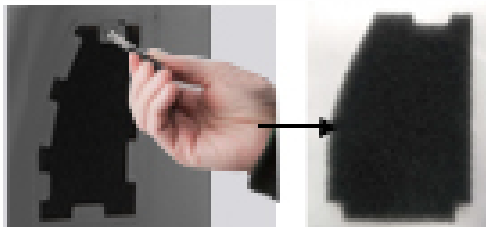


FIGURE # 5

5. Maintenance

Intake filter: The intake filter access door is located on the left side of the concentrator. Using a small screwdriver, open the access door. Unscrew the block of cabinet filter holder. Remove the intake filter. (Figure 6)

It is recommended to replace with a new Intake filter every 2,000 hours. More frequent inspection and replacement of filter may be required if operating concentrator in a dusty environment.

The intake filter cannot be cleaned and can only be replaced.



FIGURE # 6

5.3 Cleaning the Optional Humidifier Bottle

- Change the water in the humidifier bottle every day.
- Cleaning: Wash the humidifier bottle weekly. Use household detergent to wash. Then rinse under running water and dry.
- Disinfect: Disinfect the humidifier parts by immersing them in a disinfectant, or 1 part diluted vinegar with 10 parts water. Then rinse under running water and dry.
- Disassembly humidifier bottle.

1. (1) Unscrew the humidifier bottle. (Figure 6a)
2. (2) Remove tube and its terminal filtration. (Figure7)



FIGURE #6a

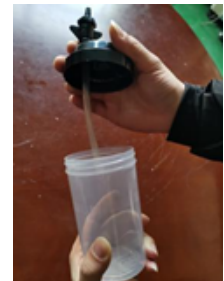


FIGURE #7

5.4 Oxygen nasal cannula (Available accessories)

Follow the nasal cannula manufacturer's instructions.

5.5 Tube maintenance

It is recommended to maintain/replace the internal tube once a year.

5.6 Note - For Every New Patient:

Follow the instructions from the humidifier manufacturer.

The cabinet air filter should be washed or replaced.

The entire oxygen administration circuit (oxygen therapy nasal cannula, etc.) must be changed

6. Troubleshooting

Troubleshooting Guide

SYMPTOM	PROBABLY CAUSE	SOLUTION	REMARK
Elapsed time meter displays, the green and the yellow light, but the oxygen concentrator stops running immediately and has a continuous buzzer.	1) Four corners plug-in of the valve has not been inserted completely	1) Check and connect the circuit board to the valve's fourcorners plug-in.	
	2) Exhaust sound buffer box jammed.	2) Replace it	
	3) Can't open the valve.	3) Replace it	
	4) Failure of the main electronic control circuit board.	4) Replace it	
The nasal cannula has more mirage or blobs.	1) It won't ventilate completely around the machine and the operating temperature is too high.	1) Make sure the device is at least 4" / 10 cm away from the wall, other obstruction or heater.	Repair by an authorized representative only
	2) Fan inside the machine can't run or running rate turns slow, making the operating temperature too high.	2) a. Take out the winker that locks the fan. 2) b. Replace it.	Repair by an authorized representative only
	3) Temperature of the water added to humidifier bottle is too high.	3) Add cold water in bottle.	
	4) There is too much water added to the humidifier bottle.	4) Water added should be between the maximum and minimum of the liquid levels.	

6. Troubleshooting

SYMPTOM	PROBABLY CAUSE	SOLUTION	REMARK
Concentrator works, but yellow light illuminates.	1) Concentrator's oxygen concentration is safe, but decreasing.	1) Clean or Replace filters.	
	2) Unit overheating due to blocked air intake.	2) Move concentrator at least 10 cm (4 inches) away from walls, draperies, furniture, or similar surfaces.	
	3) If condition persists, OK to continue use, but contact Equipment Provider immediately.		
Concentrator doesn't work, red light illuminates, continuous audible alarm sounds.	1) Low pressure alarm.	1) Clean or Replace filters.	
	2) If condition persists, discontinue use, contact Equipment Provider immediately.		
Concentrator doesn't work, red light illuminates, continuous audible alarm sounds.	High pressure alarm.	Contact Equipment Provider immediately.	
Concentrator doesn't work, continuous audible alarm sounds.	Compressor open circuit alarm.	Contact Equipment Provider immediately.	
Concentrator doesn't work, continuous audible alarm sounds.	Compressor short circuit alarm.	Contact Equipment Provider immediately.	

NOTE: If you experience a problem with your concentrator and require an authorized equipment representative to service or repair the device, contact the dealer or equipment provider from whom you purchased the concentrator.

7. Other Attentive Items

7.1 Post-marketing Service

- With normal use and under normal maintenance circumstances if the Oxygen Concentrator can not be normally used in half a year since delivery date, or in a year of commerce storage compressor, the company is responsible for the free repair or exchange. If it can not be normally used in half a year, user can contact the post-sales service department, office or agents for repair. If it can not be normally used after one year, the company can provide accessories and repair with reasonable charges
- The following cases is not in the scope of the repair guarantee:
 1. Damage of distortion of the integral equipment caused by collision; ☒
 2. Water or rain entering integral equipment;
 3. Equipment out of gear caused by water and drug;
 4. Parts or accessories that are easily damaged due to wear and tear; grade I filtration net, filtration carpet; damping filter, damping tube.

7.2 Treatment of Waste

The treatment of waste shall conform with federal and state laws and regulations. The change of electric circuit and appearance caused by improvement of equipment will not be informed.

7.3 Accessories and Spare Parts

The accessories used with this device must be oxygen compatible and be bio compatible.

NOTE: The connectors, tubes, nasal cannula or masks must be designed for oxygen therapy use. Included in the set of accessories supplied with this device are items that comply with these requirements. Contact your dealer to obtain these accessories.

List of accessories:

- Humidifier bottle 1 Set
- Connection tube of humidifier bottle 1 Set
- User manual 1 Set

7. Other Attentive Items


7.4 Electric and Magnetic Environment Guidance for Use

GUIDANCE AND DECLARATION OF MANUFACTURER - ELECTROMAGNETIC IMMUNITY			
The Medacure Oxygen Concentrator is intended for use in the electromagnetic environment specified below. The customer or the user of the Medacure Oxygen Concentrator should assure that the unit is used in such an environment.			
IMMUNITY	IEC 61000-4-2 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT- GUIDANCE
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact discharge ±8 kV Air discharge	±6 kV contact discharge ±8 kV Air discharge	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic materials, the relative humidity must be at least 30%
Electrical fast transient /bursts IEC	±2 kV for power supply lines ±1 kV for input/output	±2 kV for power supply lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common	±1 kV differential mode ±2 kV common	Main power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and Voltage variations on power supply input lines IEC 61000-4-11	< 5%UT (>95 % dip in UT)	< 5%UT (>95 % dip in UT)	Main power quality should be that of a typical commercial or hospital environment. If the user of the Medacure Oxygen Concentrator requires continued operation during power mains interruptions, it is recommended that the Medacure Oxygen Concentrator be powered from an interruptible power supply or a battery
	40 % UT (60 % dip in UT) for 5 cycle	40 % UT (60 % dip in UT) for 5 cycle	
	70 % UT (30 % dip in UT) for 25	70 % UT (30 % dip in UT) for 25	
	<5 % UT (95 % dip in UT) for 5 sec	<5 % UT (95 % dip in UT) for 5 sec	
Power frequency (50 Hz) magnetic IEC 61000-4-8	3 A/m	Due to the fact that the EUT contains no components susceptible to magnetic field, it is deemed to fulfill the relevant immunity requirement without testing.	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: UT is the a.c. main voltage prior to application of the test level.			

7. Other Attentive Items

GUIDANCE AND DECLARATION OF MANUFACTURER - ELECTROMAGNETIC IMMUNITY

The Medacure Oxygen Concentrator is intended for use in the electromagnetic environment specified below. The customer or the user of the Medacure Oxygen Concentrator should assure that the unit is used in such an environment.

IMMUNITY	EC61000-4-2	COMPLIANCE LEVEL	ELECTROMAGNETIC ENVIRONMENT- GUIDANCE
directed HF interference acc. to IEC 61000-4-6 Radiated RF IEC	3 Vrms 150 kHz to 80 MHz 3 V/m 80 kHz to 2.5 GHz	3 V 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the Medacure Oxygen Concentrator, including cables, or more than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: d= 1.2 √P d= 1.2 √P 80 MHz to 800MHz d= 2.3 √P 800 MHz to 2.5GHz Where P is the maximum output power rating of the transmitter in Watt (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters as determined by an electromagnetic site survey should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 

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

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

a. Field strengths from fixed transmitters, such as base stations of radios, (cellular/cordless) telephones and land mobile radios, amateur radios, AM and FM radio broadcast and television broadcast, cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Medacure Oxygen Concentrator is used exceeds the applicable RF compliance level above, the Medacure Oxygen Concentrator should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Medacure Oxygen Concentrator.

b. over the frequency range from 150 kHz to 80 MHz, the field strengths should be less than 3 V/m.

7. Other Attentive Items

RECOMMENDED SEPARATION DISTANCES BETWEEN PORTABLE AND MOBILE RF COMMUNICATION EQUIPMENT AND THE MEDACURE OXYGEN CONCENTRATOR.

The Medacure Oxygen Concentrator is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or user of the Medacure Oxygen Concentrator can help to prevent electromagnetic interferences by maintaining minimum distances between the portable and mobile RF communication equipment (transmitters) and the Medacure Oxygen Concentrator as recommended below, according to the maximum output power of the communication equipment.

Rated maximum output power of transmitter (W)	separation distance according to frequency of transmitter(m)		
	150 kHz to 80 MHz $d=1.2\sqrt{P}$	80 MHz to 800 MHz	800 MHz to 2.5 GHz
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (w) according to the transmitter manufacturer.

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

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



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