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

REACTHEALTH

PHOENIX™ 5 Oxygen Concentrator

Model SOC5100
User Manual

Contents

WARNING!

Federal law restricts this device to use by, or on the order of, a physician.

1. Symbols

The following table is a list of symbols and definitions that used with the Oxygen Concentrator.

Symbol	Description	Symbol	Description
	Warning – Describes a hazard or unsafe practice that can result in severe bodily injury or death		Caution – Describes a hazard or unsafe practice that can result in property damage
	"ON" (power)		"OFF" (power)
	Follow User's Manual		Type BF Equipment
	CLASS II equipment, Double Insulated		Serial Number
	Do not dispose of in household waster. Separate collection for electrical and electronic equipment		Variability, rotational adjustment. To identify the control by means of which a quantity is controlled. The controlled quantity increases/decreases by rotation with the figure width.
	Manufacturer		Alternating current
	Fragile, handle with care		Keep dry, keep away from rain
	This Way Up		Stacking Limit By Number
	No open flame; Fire, open ignition source and smoking prohibited		No Smoking
Rx Only	Prescription only		Use no oil, grease or lubricants

2. Safety Notice

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.

WARNING!

In the event of an alarm, or if you observe your oxygen concentrator not working properly, or if you feel discomfort, consult your Equipment Provider and /or your physician immediately.

WARNING!

Use only voltage specified on rating label.

WARNING!

This device manufactures high concentration oxygen, which promotes rapid burning.

Keep oxygen concentrator far away from open flames and no smoking around the patient.

WARNING!

Do not leave a nasal oxygen cannula under bed coverings or chair cushions. If the unit is turned on without use, the oxygen will help the flammable material catch fire.

WARNING!

Use no lubricants, grease, or petroleum-based products on or near your oxygen concentrator.

Do not lubricate fittings, connections, tubing or other accessories of the concentrator to avoid the risk of fire or burns.

WARNING!

Electrical shock hazard. Do not remove covers while the unit is plugged in. Only your Equipment Provider or a qualified service technician should remove the covers or service the unit.

WARNING!

Care should be taken to prevent the unit from getting wet or allowing water to enter the unit.

WARNING!

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING!

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the PHOENIX 5 medical oxygen concentrator, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

CAUTION!

The oxygen concentrator should be set to use in an environment without dust, corruption or toxicological harm gas.

CAUTION!

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

CAUTION!

Do not place items on top of the concentrator.

CAUTION!

Always place the concentrator on a hard surface. Never place the concentrator on a surface such as bed or couch, where the concentrator may tip or fall.

CAUTION!

NEVER leave the concentrator unattended when plugged in.

CAUTION!

Ensure there is no obstruction to the bottom of unit to allow proper operation and prevent device overheating.

CAUTION!

Allow the oxygen concentrator 5 minutes to warm up to reach regular function and nominal performance.

NOTE: If oxygen does not seem to flow, first verify that the flow-meter ball is registering a flow. Then, place the tip of the cannula into a glass of water; if bubbles come out of the cannula, oxygen is flowing. If bubbles do not appear, turn off the oxygen concentrator immediately and refer to Troubleshooting.

NOTE: There is never a danger of depleting the oxygen in a room when you use your oxygen concentrator.

2.1 Radio Frequency Interference

Most electronic equipment is influenced by Radio Frequency Interference (RFI). When there is strong electromagnetic interference, the LCD may be slightly affected, but the oxygen concentrator is still running. ALWAYS exercise CAUTION with regard to the use of portable communications equipment in the area around such equipment.

2.2 Requirement of environment protection

The materials used in the system won't create an environmental hazard. The packing materials of the system are recyclable, and they must be collected and disposed according to the related regulation in the country or region where the package of the system or its accessories is opened.

2.3 Contraindication

Device should not be used by patients with oxygen poisoning or oxygen allergy.

3. Product introduction

The PHOENIX 5 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 is 93% +/-3%. The oxygen is delivered to the patient through the use of a nasal cannula.

The PHOENIX 5 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 filtered, then delivered to the patient. The PHOENIX 5 concentrator is capable of operation by the patient in a home or healthcare environment.

4. Kit Contents

- PHOENIX 5 Oxygen Concentrator
- Nasal Cannula, quantity 2
- Humidifier Bottle
- Extra Cabinet Filter

5. Intended Use/Indications for Use

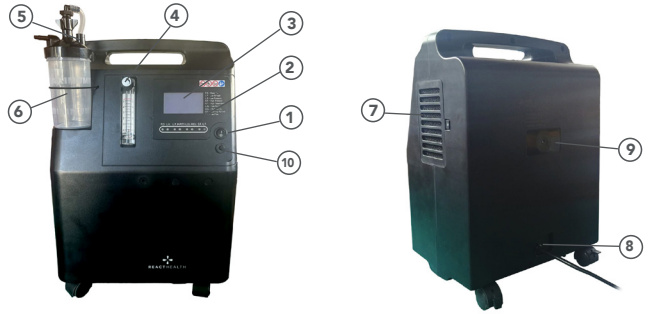
The PHOENIX 5 Oxygen Concentrator is intended to be used by patients with respiratory disorders who require supplemental oxygen. A high concentration of supplemental oxygen is supplied and a nasal cannula is used to channel oxygen from the concentrator to the patient. The PHOENIX 5 can be used in home or healthcare environments.

PHOENIX 5 does not, nor is it intended to sustain or support life.
The device is intended for use in adults.

6. Technical Parameters

Model	SOC5100
Rated power (watts)	328W / 3.3Amps, nominal steady state 480VA max
Operation Voltage (V/Hz)	AC120/60
Oxygen flow (L/min)	0.5-5
Oxygen concentration (%)	93%±3%
Outlet pressure	0.04 -0.07MPa, 6 - 10 PSI
Alarm	power supply failure, start up failure, low and high pressure, low purity, high temperature, low flow, power loss
Electrical category	Class II, Type BF
Net Weight (kg/lbs)	16kg / 35lbs
Dimension (mm, inches)	280 (deep)* 348 (width)* 510 (height) 11.0236" (deep)* 13.7" (width)* 20" (height)
Low oxygen concentration alarm	When oxygen purity is ≥ 82%, the blue lamp is on. When oxygen purity is < 82%, yellow lamp is on, indicating low purity
Ambient temperature	5°C-40°C, 41°F-104°F
Environment temperature scale	-40~55°C, -40°F-131°F
Relative humidity	30%-85%
Air pressure scale	700 hPa-1060 hPa
Altitude	Up to 2286m/7500ft without degradation; Consult your equipment provider for further information regarding 2286m - 4000m (7500ft - 13,126ft).
Sound pressure	<49.5 dBA weighted for 3 L/min flow (tested per ISO80601-2-69, subclause 201.9.6.2.1.101) <50.3 dBA weighted for 5 L/min flow (tested per ISO80601-2-69, subclause 201.9.6.2.1.101)
Sound power	<58.2 dBA weighted for 5 L/min flow (tested per ISO80601-2-69, subclause 201.9.6.2.1.101)

7. Component Identification



1. **Power switch**
2. **Indicator Lights**
   a. PO: power switch
   b. PF: power supply failure
   c. LP: low pressure (yellow lamp)
   d. HP/HT: high pressure/over heated temperature (red lamp)
   e. LO2: oxygen concentration is <82%, (yellow lamp)
   f. HO2: oxygen concentration is ≥82%, (blue lamp)
   g. SF: start up failure
   h. LF: low flow
3. **LCD Display:** Display will be lit during start up
4. **Oxygen Flowmeter:** Center the ball on the prescribed oxygen output flowrate (L/min)
5. **Oxygen Outlet**
6. **Humidifier Bottle:** Use only as prescribed
7. **Cabinet Filter:** See Section 10 for maintenance
8. **Power Cord**
9. **Product Rating Label**
10. **Circuit Breaker**

8. Operation instructions

CAUTION!

The plug is the disconnection device of the oxygen concentrator. When the plug is pulled, there is no power supply.

Be certain to place the unit where all sides are at least 30 cm (1 ft) away from walls, draperies, furniture, or other obstructions. Do not place the unit in a confined area.

CAUTION!

Do not turn on or off frequently. After turning off, allow at least 5 minutes before restarting the oxygen concentrator (allowing internal gas to exhaust completely). Turning on the air compressor under pressure will shorten its life.

8.1 Setting Up the Humidifier (If Prescribed)

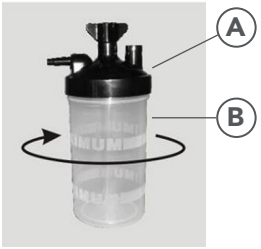
WARNING!

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 7 ft (2.1 m) in length, position the humidifier as close to the patient as possible to allow for maximum humidification output.

Humidifier Bottle with Cap



1. Remove cap (A) from bottle (B).
2. Fill humidifier bottle with cooled boiled tap water to the level indicated by the manufacturer. Boil tap water for approximately ten minutes and cool to room temperature prior to use.

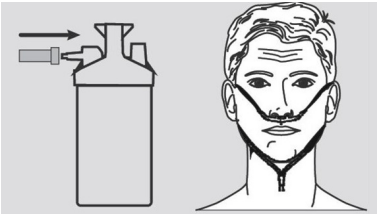
CAUTION!

Risk of Damage

- Confirm the humidifier cap is not cross-threaded on the humidifier bottle.

8.2 Connecting the nasal oxygen cannula

Connect the nasal oxygen cannula to the humidifier outlet nozzle or to the concentrator outlet if a humidifier has not been prescribed. Then set the nasal oxygen cannula over patient's ears, insert the nasal oxygen cannula into patient's nostrils to absorb oxygen; The nasal oxygen cannula should be limited to 20 meters (65 ft) long, in order to ensure that the oxygen flow rate remains within specification values. You should be able to hear or feel the flow of gas to the prongs of the nasal cannula. Wave your hand in front of the prongs. If you do not feel the gas flowing, check the cannula connections for leaks.



8.3 Plug in power cord

Plug power cord into an electrical outlet of the correct voltage and frequency. Then set the I/O powerswitch to the "I" position to turn the unit on, at the same time the PO lamp will light.

8.4 Set the flow of supplemental oxygen

Turn the oxygen flow meter knob left or right until the ball inside the flowmeter centers on the line of the physician prescribed flow setting.

WARNING!

Risk of Minor Injury or Discomfort

It is very important to select the prescribed oxygen flow setting. This will ensure you will receive the therapeutic amount of oxygen according to your medical condition.

- DO NOT increase or decrease the L/min flow setting unless a change has been prescribed by your physician or therapist.
- The therapeutic effectiveness of the prescribed oxygen flow setting should be periodically reassessed.
- Use only the tubing and accessories that were used to determine the prescribed oxygen flow setting.

9. Alarms-Safety devices

9.1 Alarms

According to the severity of the alarm, the alarm status of the oxygen concentrator is divided into high priority alarm and low priority alarm. The oxygen concentrator has set alarm limits that users cannot change.

High priority alarm:

indicates that the operator needs to respond immediately.

Sound pressure level dBA >62dBA

Low priority alarm: indicates that the operator needs to pay attention.

Sound pressure level dBA >41dBA

The list of alarm indications is as follows:

No	Alarm type/ name	Priority	Alarm signals/ Indicator light	Audible Yes/No	Alarm limit	Alarms signal delay	Alarm cleared	Remark
1	Power supply failure	Low priority	Yellow	Forced audible alarm	Input below 102V	No delay	Turn off	When the power supply falls below the value necessary to maintain normal operation, an audible alarm is activated with yellow indicator.
2	Start-up failure	Low priority	Yellow	Yes	After 2 minutes of startup, the concentration is below 82%	No delay	Turn off	When the concentrator is on for 120 seconds and the oxygen concentration is below 82%, the concentrator emits a low priority alarm with a yellow LED indicator.
3	Low oxygen concentration	Low priority	Yellow	Forced audible alarm	Concentration below 82%	No delay	Turn off	The oxygen concentration will rise to the normal level in five minutes of operation. When oxygen purity is ≥ 82%, the blue lamp is on. When oxygen purity is <82%, yellow lamp is on and an audible alarm is activated, indicating low purity.
4	Low pressure	Low priority	Yellow	Yes	System pressure below 0.09Mpa (13 PSI)	Delay of 7 seconds	Turn off	There is a pressure sensor on the main board to check the system pressure, when the pressure is lower than 0.09Mpa (13 PSI), there is an audible alarm with yellow indicator and the concentrator is still working.
5	High pressure	High priority	Red	Yes	The system pressure is higher than 0.23Mpa (33 PSI)	Delay of 7 seconds	Turn off	There is a pressure sensor on the main board to check the system pressure. When the pressure is higher than 0.23Mpa (33 PSI), there is an audible alarm with red indicator and the concentrator will shut down.
6	High temperature	High priority	Red	Yes	The temperature inside the machine is higher than 50 °C (122°F)	No delay	Turn off	There is a temperature sensor on the main board to check the internal temperature. When the temperature is higher than 50°C 122°F) in the oxygen concentrator, there is an audible alarm with red indicator on and the concentrator will shut down.
7	Low flow	Low priority	Yellow	Yes	The oxygen flow is below 0.5L/min	No delay	Turn off	When the oxygen flow is below 0.5L/min, the concentrator emits a low priority alarm with a yellow LED indicator.
8	Power loss	--	--	Yes	The main power is lost	No delay	Restore power supply	When main power has been interrupted, there is a audible alarm

9.2 Safety devices

a. **Compressor motor:**
Thermal safety is ensured by a thermal switch situated in the motor winding (145±5°C/ 293±9°F).

b. **Safety valve:**
This is fitted on the compressor outlet and is calibrated to 2.5 bar (250kPa/38PSI).

c. **Fire Safe Valve:**
This valve is located inside the concentrator, just before the oxygen outlet port and will stop the flow of oxygen if fire is detected.

NOTE: If legally binding regulations govern the installation, service and/or the operation of the product, it is the responsibility for the operator to observe and follow these regulations.

10. Maintenance

WARNING

Disconnect the power cord from the electrical outlet before you clean the cabinet.

WARNING

Do not operate the concentrator without the filters installed, or while filters are wet. These actions could permanently damage the concentrator.

10.1 Service Life

The expected service life of this product is five years or 20,000 hours, whichever comes first, with proper maintenance.

10.2 Clean the outer cabinet

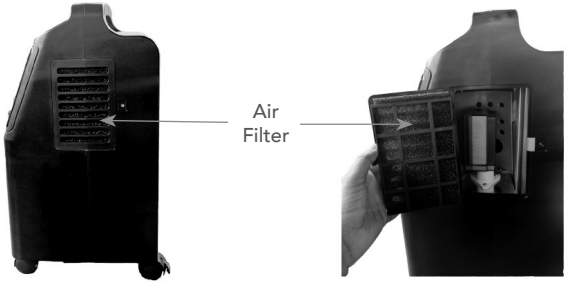
With the power off, wipe with a damp towel and dry as needed.

10.3 Clean the cabinet filter

It is very important to clean the cabinet filter every two weeks (approximately every 300 hours), or as needed, depending on the environment. Failure do so can impact concentrator performance.

WARNING

Failure to maintain the filter may result in restricted airflow, overheating, or reduced device performance.



Detail steps: Loosen the screw and remove the filter grid.
Do not lose the screw.

Option 1: Use a hand held vacuum to clean both sides of the filter grid.

Option 2: Clean the filter grid with soapy water, rinse thoroughly and allow to dry.

Replace the filter grid and tighten the screw.

10.4 Clean the humidifier

(if the humidifier is prescribed by a physician)

NOTE: To clean the oxygen humidifier, follow the instructions provided by manufacturer. If none are provided, follow these steps:

a) Clean the humidifier every day.

b) Wash it in soapy water and rinse it with a solution of ten parts water and one part vinegar.

c) Rinse thoroughly with hot water.

10.5 Clean Oxygen tubing and nasal cannula

NOTE: To clean the nasal oxygen tube, follow the instructions provided by the manufacturer. If none are provided, follow these steps:

a) Clean the nasal oxygen tube once a week or as needed.

b) Wash the nasal oxygen tube in soapy water and rinse it with a solution of ten parts water and one part vinegar.

c) Rinse thoroughly with hot water and hang to dry.

10.6 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/Replace Compressor Inlet Filter*							
Check Prescribed L/min. Flowrate							
DURING PREVENTIVE MAINTENANCE SCHEDULE, OR BETWEEN PATIENTS*							
Every 3 years of continuous use (Equivalent to 26,280 hours)							
Check Oxygen Concentration (blue indicator light)							
Clean/Replace Cabinet Filter(s) (Refer to Cleaning the Cabinet Filter.)							
Check/Replace Outlet Bacterial Filter*							
Check/Replace Compressor Inlet Filter*							
Check Power Loss Alarm*							
*To be conducted by supplier or qualified service technician. Refer to service manual.							

26,820 hours are equivalent to usage 24 hours per day, 7 days per week for 3 years.

11. After Use

11.1 Recycling Information

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.

11.2 Wear and Tear

React Health 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 this user manual for proper preventive 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

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.

12. Condition for transportation and storage

Environment temperature scale	-40~55°C (-40 - 131F)
Comparative humidity scale	≤95%
Air pressure scale	700 –1060 hpa

13. Troubleshooting

If your concentrator fails to operate properly, please refer to the trouble-shooting chart on the following pages for probable causes and solutions. If problems with the equipment continue, please contact your Equipment Provider.

NOTE: If the unit has not been used for an extended time period, it needs to operate for several minutes before power failure alarm can become activated.

No.	Trouble	Causes	Solution
1	No operation after power connected and the audible PF alarm is activated.	1. No connection between circuit of oxygen concentrator and power 2. There is no power supply.	1. Confirm the switch, plug, and power line are in good connection.
2	No oxygen output, and the LF yellow lamp is lit with audible alarm.	1. Kinked or blocked tubing 2. Filter clogged 3. Humidifier bottle leaking	1. Reconnect the oxygen tubing or cannula 2. Clean the filter 3. Take off the lid and re-tighten. Block the outtake with thumb after turning on. There will some sound from the humidifier after 5 second around (the safety valve of humidifier turns on)
3	No exhaust sound	1. The joint of exhaustion muffler fallen off 2. Exhaustion muffler broken	1. Reconnect the joint 2. Have the muffler replaced
4	Excessive exhaust noise	1. The joint of exhaustion muffler fallen off 2. Exhaustion muffler broken	1. Reconnect the joint 2. Have the muffler replaced
5	The concentrator is working but the LP lamp is lit with audible alarm.	The system pressure is too low.	Check every gas circuit connector with soapy water to determine if there is air leakage.
6	The concentrator is stopped and the HT lamp is lit with audible alarm.	The temperature in the oxygen concentrator is too high.	1. Check the fan's connector on the main board to determine if it has bad contact. 2. Turn off the concentrator and consult your Equipment Provider.
7	The concentrator is stopped and the HP lamp is lit with audible alarm.	The system pressure is too high.	Turn off the concentrator and consult your Equipment Provider.
8	The concentrator is working but the LO2 lamp is lit.	Oxygen concentration is too low.	1. Check every gas circuit connector with soapy water to determine if is air leakage. 2. Turn off the concentrator and consult your Equipment Provider.

14. Information on Electromagnetic compatibility

The PHOENIX 5 needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the accompanying documents; Portable and mobile RF communications equipment can affect the PHOENIX 5 .

All cables and maximum length of cables, Transducers and other accessories with which the manufacturer of the PHOENIX 5 claims compliance with the requirements, Accessories that do not affect compliance with the requirements of these sub clauses need not be listed. Accessories, transducers and cables may be specified either generically or specifically

NOTE: Transducers and cables sold by the manufacturer of the PHOENIX 5 as replacement parts for internal components need not be listed.

The use of accessories, transducers and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of The PHOENIX 5 as replacement parts for internal components, may result in increased emissions or decreased immunity of PHOENIX 5.

Guidance and manufacturer's declaration – electromagnetic emissions		
The PHOENIX 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the PHOENIX 5 should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The PHOENIX 5 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The PHOENIX 5 is suitable for use in all establishments other than domestic, and may be used in domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, provided the following warning is heeded: **Warning:** This PHOENIX 5 is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the PHOENIX 5 or shielding the location.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
The PHOENIX 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the PHOENIX 5 should assure that it is used in such an environment.			
IMMUNITY test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment – guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 15 kV air	± 8 kV contact ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/ output lines	± 2 kV for power supply lines ± 1 kV for input/ output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains 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) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the PHOENIX 5 requires continued operation during power mains interruptions, it is recommended that the PHOENIX 5 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	Not applicable Note: The PHOENIX 5 does not contain components susceptible to magnetic fields, such as Hall elements or magnetic field sensors. Therefore, the EUT is deemed to meet the requirement without actual testing.	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Guidance and manufacturer's declaration – electromagnetic immunity

The PHOENIX 5 is intended for use in the electromagnetic environment specified below. The customer or the user of the PHOENIX 5 should assure that it is used in such an environment.

IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 V 0.15MHz-80 MHz 6V in ISM bands between 0.15MHz and 80 MHz 80% AM at 1kHz	3 V 0.15MHz-80 MHz 6V in ISM bands between 0.15MHz and 80 MHz 80% AM at 1kHz	Portable and mobile RF communications equipment should be used no closer to any part of the PHOENIX 5, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** d=1.17 √P d=1.17 √P 80MHz to 800MHz d=2.33 √P 800MHz to 2.7 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz 80% AM at 1kHz	3 V/m 80 MHz to 2.7 GHz 80% AM at 1kHz	

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 for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the PHOENIX 5 is used exceeds the applicable RF compliance level above, the PHOENIX 5 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the PHOENIX 5.

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

Recommended separation distances between portable and mobile RF communications equipment and the PHOENIX 5

The PHOENIX 5 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the PHOENIX 5 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the PHOENIX 5 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz d=1.17 √P	80 MHz to 800 MHz d=1.17 √P	800 MHz to 2,7 GHz d=1.17 √P
0.01	0.12	0.12	0.07
0.1	0.37	0.37	0.22
1	1.17	1.17	0.70
10	3.69	3.69	2.21
100	11.67	11.67	7.00

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (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 80 MHz and 800 MHz, 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.

15. Limited Warranty

This warranty is extended only to the original purchaser who purchases this product when new and unused from React Health or a dealer. This warranty is not extended to any other person or entity and is not transfeable or assignable to any subsequent purchaser or owner. Coverage under this warranty will end upon any such subsequent sale or other transfer of title to any other person. This warranty gives you specific legal rights and you may also have other legal rights which may vary from state to state.

React Health warrants its PHOENIX 5 Oxygen Concentrators when purchased new and unused to be free from defects in materials and workmanship for a period of three years from date of purchase from React Health or a dealer, with a copy of the seller's invoice required for coverage under this warranty.

This warranty does not cover damage caused by accident, misuse, abuse, alteration, and other defects not related to material or workmanship.

16. Relationship between outlet oxygen concentration and flow rate

Flow Rate (L/min)	0	1	2	2.5	3	4	5
Export oxygen concentration (V/V)	21%	92.95%	94.00%	95.20%	94.20%	94.16%	93.84%

Note: When the flow rate is 0L/min, the outlet pressure is 0Kpa.

NOTES:

Manufactured by Longfian for:
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