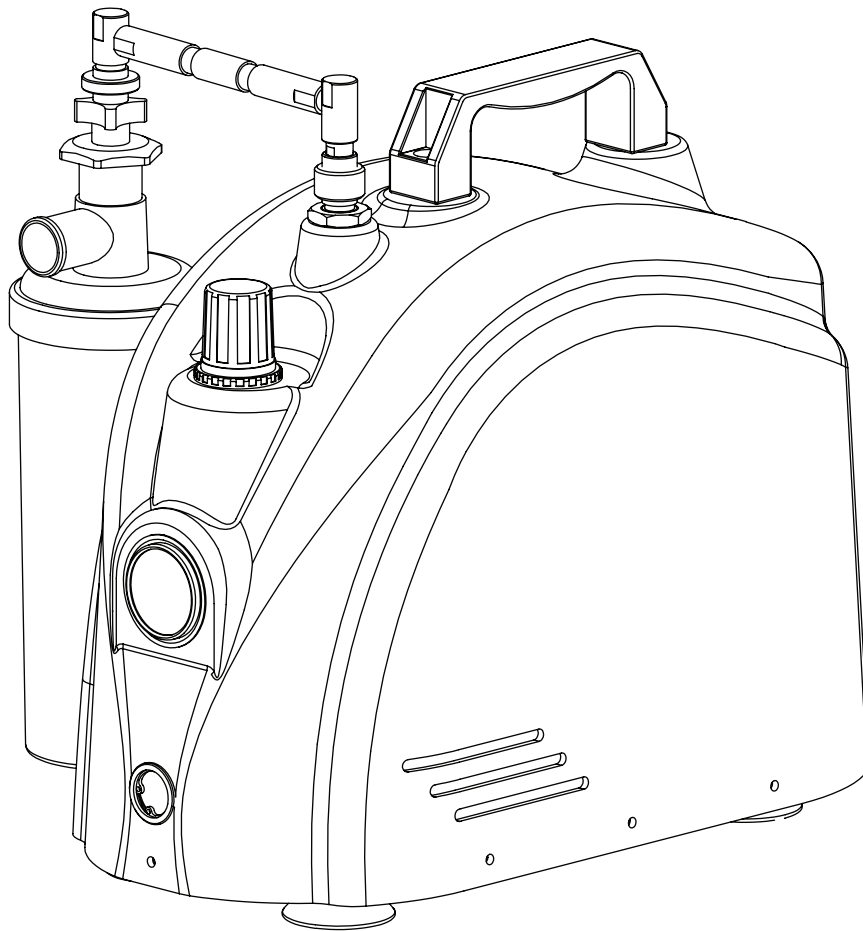


Cliq™

CX-500 50 PSI Compressor Manual



CAUTION: United States federal law restricts this device to sale by or on the order of a physician or practitioner licensed by the state in which he/she practices.

Please read this manual carefully before using this device. Keep this manual for future reference.

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Symbol Definitions



Manufacturer



Manufacture date



Disposal of Electrical & Electronic Equipment (WEEE): This device contains electrical and/or electronic equipment that must be recycled and should be handed over to a suitable collection point for proper disposal.



Caution: Consult instructions for warnings and safety precautions.

SN

Serial number.



Class II equipment



Protection against electrical shock; type of applied part, body floating.

IP21

Solid particle protection > 12.5 mm.
Dripping water (vertically falling drops) shall have no harmful effects.



Temperature limits.



Humidity limits.



Off



On



One time use gloves required.



Refer to instruction manual.



MR Unsafe. This device must not be used in an MRI environment.

Please read this manual carefully before using this device. Keep this manual for future reference.

Important Safety Information

Important information is highlighted by these terms:

WARNING: Danger for patient or operating staff.

CAUTION: Information for preventing damage to the product.

ATTENTION: Important operating instructions.

WARNING

- This device is intended for use by trained and certified healthcare professionals such as doctors, nurses, and therapists, or by those under their guidance. Use only after consulting with your doctor and receiving proper training from a trained healthcare professional.
- Using this device for any purpose other than the stated intended use may result in injury to the patient or operator.
- For patients for whom a breakdown of the device can lead to a critical situation, a replacement or back-up device must always be readily available.
- Do not use this device with attachments or accessories which have not been approved by the distributor or manufacturer of the product. Use of unapproved attachments or accessories may cause harm to the patient and will void the warranty coverage for this device.
- During use, do not exceed pressure settings recommended by your healthcare professional or physician.
- Never open, disassemble, or modify the device, or any accessories included with the device.
- This product contains small parts that may represent choking hazards.
- Device is MR Unsafe. This device must not be used in an MRI environment. Further the device shall not be placed or operated in the following environments or near the following devices: CT, diathermy machine, RFID transmitters, electromagnetic security systems (such as metal detectors).

To reduce the risk of burns, electrocution, fire or injury to persons:

- Do not store the device where it can fall or be pulled into a tub, sink, or other water source.
- Never place the device in water or other liquids. If it falls in water, do not reach for it. Unplug immediately.
- The device must stand upright during use.
- Keep the power cord away from hot surfaces.
- Keep the plug and power switch away from moisture.
- Never use the device (1) while bathing, showering, or close to a water source (2) when tired or not fully alert (3) at high room temperatures (4) in an environment where there is a risk of explosion.
- Close supervision is required when this device is used for, with, or near children or infants. This device should not be operated by children.
- Do not operate in an oxygen-enriched environment.
- Never operate this product if: (1) It has a damaged power cord or plug. (2) It is not working properly. (3) It has been dropped or damaged. (4) It has been dropped into water. Send the product to an authorized service center for examination and repair.
- Use caution when plugging in and unplugging the device. Do not allow jewelry or other metal items to contact plug.

CAUTION

- Before plugging in the device, please check that local mains conforms to the specified voltage requirements mentioned on the voltage sticker found on the bottom of the device.
- Do not use this product with a DC to AC converter.
- Always unplug the device immediately after use. Never pull the plug out of the mains socket by pulling on the power cable.
- Ingestion of aerosols into the compressor may result in damage to the unit.
- Never drop or insert any object into any opening or hose.
- Never block the air vents of the unit or place the unit on a soft surface, such as a bed, couch, or plush carpeting where the air openings on the bottom or sides of the unit may become blocked. Keep air openings free of lint, hair, and the like.
- This machine is an oil-less compressor and does not require any lubrication. Do not add any lubricants to this machine.

ATTENTION

- Prior to first use, carefully unpack the unit and check for transportation damage. In case of damage, do not use.
- This unit is suitable for use at home, in hospitals or clinics, and in nursing homes.
- Before using any approved third party accessories with this device, check to make sure they are compatible - that all fittings are tight. Loose fittings may degrade the performance of this device and may prevent the device from operating at its optimal level.

Product Introduction

Device Description

The CX-500 50 PSI Compressor is designed for efficient high pressure performance for an extended period of time. It is intended to administer humidified air or medication into the airways to treat respiratory disorders. The device is intended for home health care and institutional use.

This unit is designed to work with:

- Heated nebulizers
- Compatible hand-held nebulizer systems
- Dual action humidifiers / nebulizers
- Mist tents
- High output pneumatic nebulizers
- Deluxe nebulizers with oxygen diluter

Intended Use / Indications for Use

The CX500 50 PSI Compressor is used to administer humidified air or atomized medication into the airways to treat respiratory disorders. The device is intended for home health care and institutional use.

Service Life

The expected service life of the device is 2 years.

Product Specification

Power requirement: AC 110-120V 60 Hz

Air flow at 0 psi: 37 lpm

Air flow at 50 psi: 17 lpm

Pressure: 0 - 95 psi (preset)

Dimensions: 36 x 19 x 32 cm

Weight: 6.8 kg / 14.9 lbs

Operating temperature range: 5 - 40 °C

Operating relative humidity: 0 - 93%

Operating atmospheric pressure: 70 - 106 kPa (10.2 - 15.4 psi)

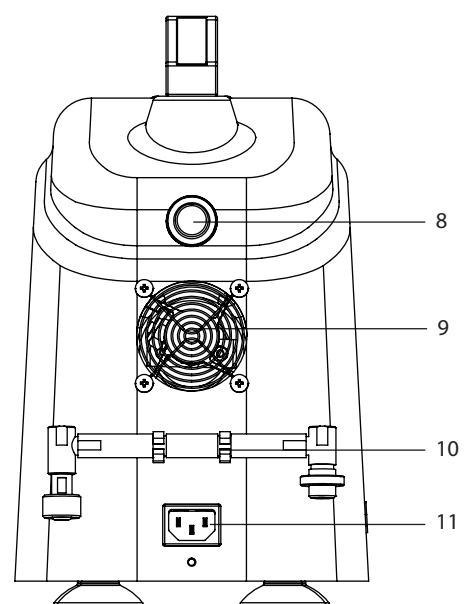
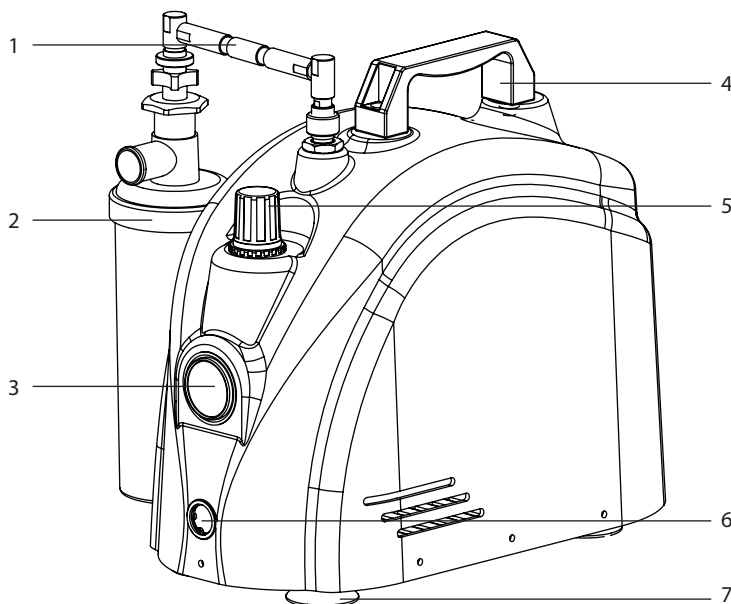
Storage and transport temperature: -25 - 70 °C

Storage and transport humidity: 0 - 93%

Storage atmospheric pressure: 50 - 106 kPa (7.3 - 15.4 psi)

Part List

- | | | |
|------------------------------------|-----------------------------------|-------------------------------|
| 1. U-shaped connector (1) | 6. Filter | 11. Power inlet |
| 2. Nebulizer bottle (not included) | 7. Rubber feet (4) | 12. Power cord (not pictured) |
| 3. Pressure gauge | 8. Power switch | |
| 4. Handle | 9. Fan cover | |
| 5. Regulator knob | 10. Holder for U-shaped connector | |



Accessories / Replacement Parts

The following accessories and replacement parts are available for purchase. Please address all inquiries to our distributors or authorized service centers in your region.

Item	Part No.	Specification	
Filters - 4 pack	41200509		Filter must be replaced every 6 month, or when it's damaged, dirty, or clogged.
Power cord	3703013A	Type A plug length: 3 m	Must be replaced if damaged.

WARNING: Nebulizer bottles are not provided with this device and must be purchased separately, in accordance with the instructions of a trained healthcare professional or physician. Only use nebulizer bottles that are compliant with local and/or national laws, regulations, and directives. In the US, only use nebulizer bottles that are compliant with FDA regulations and have market authorization from the FDA. Failure to do so, may cause harm to the patient.

Operation



1. Refer to the "Part List" Section on p. 5 for parts identification.
2. Place the CX-500 50 PSI Compressor on a flat stable surface and in a position which will allow adequate air flow on all sides of the compressor.
3. Connect the U-shaped connector to the air outlet of the compressor.
4. Connect the nebulizer bottle (not included with your purchase) and/or any other approved equipment that you plan to use with the CX-500.
5. Plug the power cord into the CX-500 power inlet.
6. Before plugging in the power cord, make sure the power switch is in the "OFF" position. Plug the power cord into an appropriate power source.
7. To start the compressor, press the power switch "ON."
8. After use, remove nebulizer bottle and turn on compressor for 1 minute. This is to prevent moisture build-up in the pump and maximize product life.
9. Turn off and unplug the device, unscrew the U-shaped connector and snap the connector into its holder found at the rear of the device.

CAUTION

- Make sure the power switch is turned off before inserting or removing the plug.
- Keep the machine dry. Avoid direct sun exposure during storage.

Adjusting Compressor Pressure

Adjust the compressor pressure by turning the regulator knob clockwise (to increase pressure) or counter-clockwise (to decrease pressure). The regulator knob must first be pulled-up to commence adjustment and then pushed down to lock. While adjusting pressure, observe the compressor's pressure level as displayed by the pressure gauge. Adjust the pressure to the level specified by your physician or healthcare professional.

ATTENTION: In order for the unit to register a correct pressure reading, nebulizer bottle and associated tubing must be connected.

WARNING: Set pressure in accordance with instructions provided by your physician or healthcare professional.

Cleaning & Maintenance

WARNING

- Prior to cleaning, make sure machine is turned off and unplugged.
- Do not submerge the device in water, as this will damage the compressor.
- Do not gas sterilize.
- Wear disposable gloves during cleaning procedures.



- Wipe machine clean with damp cloth.
- Make sure that the fan cover and all air vents on the sides and bottom of the unit are free of dust, lint, and hair.
- Replace filter when clogged. Use needle-nosed pliers (or similar) to remove filter. Push new filter into filter enclosure using thumb or forefinger.

Warranty Length

The CX-500 50 PSI is warranted to be free from defective workmanship and materials for one (1) year from the date of purchase. Within the warranty period, any defective part(s) will be repaired or replaced at manufacturer's option. Manufacturer is not liable, and warranty is voided, for any damage or consequential damage resulting from incorrect operation of the unit, inappropriate usage of the unit, improper storage of the unit, disassembly of the unit, or use by unauthorized or untrained persons.

Troubleshooting

If you run into problems with the product, refer to the possible causes below to perform simple troubleshooting. If the problem cannot be solved, send the product to an authorized service center for examination and repair.

Problem	Possible cause	Remedy
Unit does not start	Power cord is not properly plugged into mains or the unit.	Check plug connection. Make sure plug is properly inserted into mains.
	Mains not supplying power.	Check that the mains is live by trying another device.
	Wrong voltage and current levels.	Check that the mains provides the voltage and current levels required by this device.
	Trapped back pressure.	Before starting the compressor, pull the regulator knob "UP" to unlock, and then turn the knob counter-clockwise to release pressure.
	Unit overheated.	Make sure unit is placed on a hard and stable surface and that there is sufficient clearance around the unit to allow adequate airflow. Make sure fan cover and air vents are not blocked, and are free of lint and hair. Allow unit to cool down for 30 minutes to 1 hour.
Limited air flow	Clogged air filter.	Replace dirty filter. Remove filter using needle-nosed pliers. Push new filter into filter enclosure using thumb or forefinger.
	Leak.	Check the fittings on both ends of the U-shape connector. Make sure fittings are securely connected and not damaged.
	Regulator knob setting.	Re-adjust the pressure setting on the regulator knob.
Unable to adjust pressure	Regulator knob in locked position.	Pull the regulator knob "UP".
Overheating	Poor ventilation.	Make sure unit is placed on a hard and stable surface and that there is sufficient clearance around the unit to allow adequate airflow. Make sure fan cover and air vents are not blocked, and are free of lint and hair.
All other problems.		Contact your local authorized service center.

Transportation, Storage, and Disposal

Transportation

General transportation of the unit should correspond to the conditions outlined in the 'Product Introduction' section of this manual.

Storage

Storage of the CX-500 should correspond to the conditions outlined in the "Product Introduction" section of this manual.



Disposal

- When the product's life cycle is at an end, all components of the unit must be disposed of in accordance with local regulations.
- Take care that the unit is clean and that the various materials are carefully separated for disposal.
- The European Union (EU) directives 2012/19/EU, known as the WEEE (Waste Electrical and Electronic Equipment) Directive, and 2011/65/EU, referred to as the RoHS (Restrictions on Hazardous Substances) Directive prohibits the disposal of this device in the domestic waste.
- Outside the EU: Follow disposal regulations in the country of use.

GUIDANCE AND MANUFACTURER'S DECLARATION

- All Medical Electrical Equipment requires special precautions regarding Electromagnetic Compatibility (EMC) and should only be installed and put into service according to the EMC information provided in the accompanying section.
- Portable and Mobile RF Communications Equipment could affect Medical Electrical Equipment.
- The Medical Electrical Equipment should not be stacked with, or close to other equipment. If this is necessary, ensure that the equipment is observed as having normal operation in the configuration of its intended use.

WARNING: Use of this device with electrical accessories such as extension cords or plug adapters may result in non-compliance and may negatively affect EMC performance.


Recommended separation distances between portable and mobile RF communications equipment and the ME equipment

The CX-500 Compressor is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the CX-500 Compressor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the CX-500 Compressor 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 $d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$	80 MHz to 800 MHz $d = \left[\frac{3.5}{E_1} \right] \sqrt{P}$	800 MHz to 2.5 GHz $d = \left[\frac{7}{E_1} \right] \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.7	3.7	7.37
100	11.67	11.67	23.33

Declaration – electromagnetic immunity

The CX-500 50 PSI Compressor is intended for use in the electromagnetic environment specified below. The customer or the user of the CX-500 compressor 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 Vrms 150 kHz to 80 MHz	3 V, 10V	Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT or SYSTEM including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. 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 2.5 GHz	3 V/m, 10V/m	
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 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	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	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 sec	< 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 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the EQUIPMENT or SYSTEM requires continued operation during power mains interruptions, it is recommended that the EQUIPMENT or SYSTEM be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Declaration – electromagnetic emissions

The CX-500 Compressor is intended for use in the electromagnetic environment specified below. The customer or the user of the CX-500 Compressor should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
CE emissions CISPR11	Group 1	The CX-500 Compressor 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.
RE emissions CISPR11	Class B	The CX-500 Compressor is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	