

English

Introduction

Thank you for purchasing a NC100 Compressor Nebulizer. With proper care and use, your nebulizer will provide you with many years of reliable treatments. This unit operates on standard AC power. Treatments are delivered quickly, safely and conveniently making this unit ideal for all ages. We encourage you to thoroughly read this guidebook to learn about the features of your nebulizer. Your compressor nebulizer should be used under the supervision of a licensed physician and/or a respiratory therapist. Together with your physician and/or respiratory therapist, you can feel comfortable and confident knowing that you are obtaining the most effective inhalation treatments for your respiratory condition.

NOTE: Your nebulizer is intended for use in treatment of asthma, COPD and other respiratory ailments in which an aerosolized medication is required during therapy. Please consult with your physician and/or pharmacist to determine if your prescription medication is approved for use with this nebulizer. For type, dose, and regime of medication follow the instructions of your doctor or respiratory therapist.

This device fulfils the provision of the EC directive 93/42/EEC (Medical Device Directive) and the European Standard EN 13544-1:2007+A1:2009 Respiratory therapy equipment - Part 1: Nebulizing systems and their components.

Please read this manual carefully before use and be sure to keep this manual.

Cautions

Please use general safety precautions when operating your nebulizer. This unit should be used only for its intended purpose as described in this guidebook and with medications only under the supervision and instruction of your physician. Do not use the device in anesthetic or ventilator breathing circuits.

Product cautions

READ THE FOLLOWING BEFORE USING

- To avoid electrical shock: keep unit away from water.
- Do not immerse the unit in liquid.
- Do not use while bathing.
- Do not reach for a unit that has fallen into water – immediately unplug the unit.
- Do not use the unit if it has any damaged parts (including plug), if it has been submersed in water or dropped. Promptly send the unit for examination and repair.
- The unit should not be used where flammable gas, oxygen or aerosol spray products are being used.
- Keep the air vents open. Do not place the unit on a soft surface where the openings can be blocked.
- If the medication cup is empty, do not attempt to operate the unit.
- If any abnormality occurs, discontinue to use until the unit has been examined and repaired.
- The unit should not be left unattended while plugged in.
- Do not tilt or shake the unit when in operation.
- Disconnect the unit from the electrical outlet before cleaning, filling and after each use.
- Do not use attachments unless recommended by the manufacturer.
- Do not plug or unplug the AC adapter into the electrical outlet with wet hands.
- Unplug the AC adapter from the electrical outlet after using the device.
- Do not disassemble or attempt to repair the unit.
- Do not use the device in anesthetic or ven-tilator breathing circuits.

Operating cautions

- Close adult supervision is highly recommended when the unit is used by children or invalids.
- Keep your eyes away from the output of medication mist.
- The maximum capacity of the medication cup is 5 ml and should not be overfilled.
- Do not use this unit while operating a vehicle.
- If any discomfort or abnormality occurs, stop using the unit immediately.
- Do not use the device if the air tube is bent.
- Pentamidine is not an approved medication for use with this device.

Storage cautions

- Do not store the unit in direct sunlight, high temperature or humidity.
- Keep the unit out of reach of small children.
- Always keep the unit unplugged while not in use

Cleaning cautions

- Check air filter, nebulizer, mouthpiece and any other optional components before each use. Dirty or worn parts should be replaced.
- Do not immerse the unit in water. It may damage the unit.
- Disconnect the unit from the electrical outlet before cleaning.
- Clean all necessary parts after each use as instructed in this guidebook.
- Always dispose of any remaining medication in the medication cup after each use. Use fresh medication each time you use the device.
- Do not store the air tube with moisture or medication remaining in the air tube. This could result in infection as a result of bacteria.

MEDICAL DISCLAIMER:

This manual and product are not meant to be a substitute for advice provided by your doctor or other medical professionals. Don't use the information contained herein or this product for diagnosing or treating a health problem or prescribing any medication. If you have or suspect that you have a medical problem, promptly consult your doctor.

Durable periods are as follows, provided the product is used to nebulize 2ml of medication 2 times a day for 10 minutes each time at room temperature (25°C).

Durable period may vary depending on usage environment.

- Main unit 2 years
- Air Filter 60 days
- Nebulizer Kit 1 year
- Adult and child masks 5 years
- Air Tube, Mouthpiece 1 year

Product specifications

AC Adaptor	DC12V, 1A
Power	AC 100–240V, 50–60Hz
Power Consumption	≤ 12 W
Sound Level	≤ 55 dBA (1 meter away from NC100)
Compressor Pressure Range	≤ 16 psi (110 kPa)
Operating Pressure Range	≥ 8 psi (55 kPa)
Operating Flow Range	≥ 2.0 lpm
Operating Temperature Range	10°C to 40°C (50°F to 104°F)
Operating Humidity Range	≤ 90% RH

Operating Atmospheric Pressure Range	700–1060 hPa
Storage Temperature Range	–20°C to 60°C (–4°F to 140°F)
Storage Humidity Range	≤ 90 % RH
Dimension (L x W x H)	134.7mmx88.3mmx54mm (5.3x3.48x2.13 inches)
Weight	286.5g (without accessories)
Medication Capacity	5ml(cc)
Particle Size (MMAD)	≤ 3.0µm
Average Nebulization Rate	Fully open Valve ≥ 0.2ml/min (0.9% Saline Solution), Closed Valve ≥ 0.08ml/min (0.9% Saline Solution)
Standard Accessories	Nebulizer Kit, Air Tube, Mouthpiece, Filters (5pcs), Adult and child masks

*Subject to technical modification without prior notice.

*Performance may vary with drugs such as suspensions or high viscosity. See drug supplier's data sheet for further details.

A Product identification

- Nebulizer Kit
- Nozzle
- Angled Mouthpiece
- Air Filter
- Child Mask
- Adult Mask
- AC Adaptor
- Air Tube
- Air Filter Slot
- Air Output
- Power Switch
- AC Adaptor Jack

B Valve Adjustable Technology

The proprietary adjustable valve is able to deliver mediations of different viscosity level according to every user's conditions and needs at ease. Our VA technology allows users to adjust different levels of nebulization rate ranging from 0.08 – 0.2 ml/min at consistent particle size.

The nebulization rates can be adjusted by the user in a very easy way without exchanging parts. Higher nebulization rate/fully open is for higher viscosity medications and higher breathing capacity user while lower nebulization rate with closed valve will be more appropriate for kids / infants with lower breathing capacity.

C Assembling your nebulizer kit

Follow the cleaning instructions in this guidebook under "Cleaning technique" prior to using your nebulizer for the first time or after it has been stored for an extended period of time.

REMEMBER: Always unplug the compressor and make sure the power-switch is turned to the "OFF" position before cleaning, assembling and before or after each use.

- Place the compressor on a flat, stable surface within reach.
- Gently twist and pull straight up on the lid of the nebulizer to separate into two parts (medication cup and cover).
- Make sure that the nozzle is properly installed inside the medication cup. The stem inside the medication cup inserts into the tube of the nozzle.
- Add the prescribed amount of medication to the medication cup.
- Reassemble the nebulizer by carefully twisting the medication cup and cover together. Make sure that the two parts fit securely.

WARNING: The symbol on this product means that it's an electronic product and following the European directive 2012/19/EU the electronic products have to be disposed on your local recycling centre for safe treatment.

D Operating your nebulizer

The nebulizer is operable at up to a 45° angle. If the angle is greater than 45°, no aerosol will be generated.

- Attach one end of the air tube connector to the air output.
- Carefully attach the opposite end of the air tubing connector to the stem at the base of the nebulizer kit.
- Attach the angled mouthpiece or mask to the top of the nebulizer.
- The capacity of the medication cup is 2–5 ml.

NOTE: A 30-minute interval is recommended after each use.

Operating your nebulizer

After every use:

- Unplug the unit from the power source.
- Allow the unit to completely cool.
- Carefully detach the air tubing from the nebulizer and pour out any remaining medication.
- Follow the cleaning procedures provided in this guidebook.

E Using the AC Adapter

- Check that the power switch is in the "OFF" position.
- Connect the AC adapter with the AC adapter jack in the back of the unit.
- Plug the AC adapter into the socket. (AC adapters with re-quired voltage and current indicated near the AC adapter jack.)
- Use only the authorized AC Adaptor with this nebulizer.
- Press the power-switch to the "ON" position.

F Cleaning procedures

Rinsing technique (performed after each treatment or before first use).

- Make sure that the power-switch has been turned to the "OFF" position and the unit has been disconnected from the power source.
- Disconnect the air tube from the nebulizer device.
- Gently twist and pull up the cover of the nebulizer kit to open and separate.
- Rinse the nebulizer kit and components with hot tap water.
- Dry with clean towels or completely air dry.
- Reassemble the nebulizer kit.

NOTE: For the first time cleaning or after the unit has been stored for an extended period of time, thoroughly clean all components, including the air tube. The nebulizer kit is dish-washer safe.

Cleaning the compressor

Wipe the compressor daily using a soft cloth.

NOTE: Any other form of cleaning or cleaning agents may damage the finish of the unit.

G Changing the air filter

It is important to change the air filter approximately when the air filter turns gray. It is recommended to change air filter every 2 months.

- Remove the air filter cover by gently pulling forward.
 - Discard the gray filter.
 - Replace with a new, clean air filter.
 - Securely re-attach the air filter cover to the unit.
- NOTE:** Air filters cannot be cleaned or washed. Only NC100 air filters can be used. Do not substitute alternate material such as cotton. Do not operate without an air filter.

Troubleshooting

If any abnormality occurs during use, please check and correct the following:

- Unit does not operate when power switch is pressed: Check the AC connection to the outlet.

- No misting or low rate of misting:
 - Check that there is medication in the nebulizer cup.
 - Check the main unit if there is any physical damage.
 - Check the position of the nozzle inside the nebulizer.
 - Make sure that air tube and other components are properly attached.
 - Check the air filter and replace if necessary.

Protection against electric shock:

- Class II equipment.

Type BF applied parts:

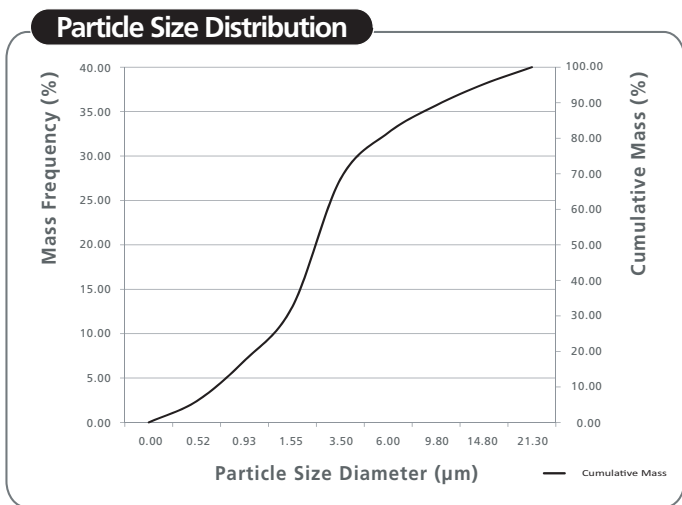
- Mouthpiece and mask.

Protection against harmful ingress of water and particulate matter:

- IP21

Degree of safety in the presence of flammable anesthetics or oxygen:

- No AP/APG (not suitable for use in the presence of flammable anesthetics or oxygen).



EMC guidance and manufacturer's declaration

Guidance and manufacturer's declaration-electromagnetic emissions		
The NC100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NC100 should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The NC100 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 B	The NC100 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	Compliance	

Guidance and manufacturer's declaration-electromagnetic immunity		
The NC100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NC100 should assure that it is used in such an environment.		
Immunity test	IEC 60601 test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air
Electrical fast transient/burst IEC 61000-4-4	± 2kV for power supply lines ± 1kV for input/output lines	+ 2kV for power supply lines Not applicable
Surge IEC 61000-4-5	± 1kV (line(s) to line(s)) ± 2kV (line(s) to earth)	+ 1kV differential mode Not applicable
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
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m

NOTE: UT is the a.c. mains voltage prior to application of the test level.

Guidance and manufacturer's declaration-electromagnetic immunity		
The NC100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NC100 should assure that it is used in such an environment.		
Immunity test	IEC 60601 test level	Compliance level
Conducted RF IEC 61000-4-6	3Vms 150kHz to 80 MHz	3Vms 150kHz to 80 MHz
Radiated RF IEC 61000-4-3	3V/m 30V/m to 2.5 GHz	3V/m 30V/m to 2.5 GHz

NOTE1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE2: 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 NC100 is used exceeds the applicable RF compliance level above, the NC100 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the NC100.

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

Recommended separation distance between portable and mobile RF communications equipment and the NC100

The NC100 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the NC100 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the NC100 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)		
	150kHz to 80MHz / d=1.2√P	80MHz to 800MHz / d=1.2√P	800MHz to 2.5GHz / d=2.3√P
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 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.

NOTE1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

RU Русский Язык

Введение

Ваш компрессорный ингалятор должен использоваться под руководством квалифицированного врача и / или специалиста по лечению заболеваний дыхательных путей. Благодарим Вас за покупку компрессорного ингалятора NC100. При надлежащем уходе и использовании Ваш ингалятор обеспечит Вам надежное лечение на протяжении многих лет. Данное устройство работает от электросети. Лечебная процедура осуществляется быстро, безопасно и удобно. Данное устройство идеально подходит для всех возрастов. Мы призываем Вас внимательно прочитать это руководство, чтобы узнать об особенностях ингалятора. Вместе со своим врачом и / или медицинским специалистом, Вы можете чувствовать себя комфортно и уверенно, зная, что Вы получаете наиболее эффективный метод ингаляционного лечения дыхательных путей.

ПРИМЕЧАНИЕ: Ваш ингалятор предназначен для лечения астмы, ХОЗП и других респираторных заболеваний, где во время лечения требуется применение аэрозольных лекарств. Пожалуйста, проконсультируйтесь с Вашим врачом и / или фармацевтом, чтобы определить, разрешено ли применение Вашего лекарства для данного ингалятора. При выборе типа, дозы и режима лечения следуйте инструкциям Вашего врача или медицинского работника. Данный прибор соответствует требованиям директивы ЕС 93/42/ЕЕС (Директива по медицинским приборам) и европейского стандарта EN 13544-1:2007+A1:2009 Оборудование респираторной терапии - Часть 1: Ингаляторные системы и их компоненты.

ИХ Прежде чем использовать данный прибор, внимательно прочитайте инструкцию и следуйте ей неукоснительно.

Внимание

Пожалуйста, соблюдайте меры безопасности при использовании ингалятора. Это устройство должно использоваться только по его прямому назначению, как описано в данном руководстве, и с лекарствами только под наблюдением и в соответствии с инструкциями врача. Не используйте устройство для анестезии или вентиляции легких.

Предостережения при пользовании изделием

ПРЧИТЕ НИЖЕСЛЕДУЮЩЕЕ ПЕРЕД ИСПОЛЬЗОВАНИЕМ

- Во избежание поражения электрическим током: не допускайте попадания воды на аппарат.
- Не погружайте прибор в жидкость.
- Не используйте во время купания.
- Не прикасайтесь к аппарату, если он упал в воду – сразу же отключите питание.
- Не используйте прибор при наличии поврежденных частей (включая шнур питания или вилку), если он был погружен в воду или упал. Отправьте прибор на экспертизу и ремонт.
- Прибор не должен использоваться в местах применения горючих газов, кислорода или аэрозольных продуктов.
- Не заграждайте вентиляционные отверстия. Не ставьте прибор на мягкую поверхность, где отверстия могут быть заграждены.
- Не используйте прибор, если чаша для лекарств пуста.
- При обнаружении отклонений в работе прибора не используйте его, пока устройство не будет осмотрено и отремонтировано.
- Неиспользуемый прибор должен быть в отключенном состоянии.
- Не наклоняйте или встряхивайте прибор во время работы.
- Перед очисткой, заполнением и после каждого использования отключайте прибор от электрической розетки.
- Используйте принадлежности только рекомендованные производителем.
- Не беритесь за выключатель питания мокрыми руками.
- Не разбирайте и не предпринимайте попыток самостоятельного ремонта
- Не используйте прибор для анестезии или вентиляции органов дыхания

Предостережения при эксплуатации изделия

- Настоятельно рекомендуется детям и инвалидам использовать прибор только под присмотром взрослых.
- Не допускайте попадания испарений или аэрозоля с лекарствами в глаза.
- Максимальная вместимость чаши для медикаментов 5 мл; переполнение чаши недопустимо.
- Не используйте прибор во время управления транспортным средством.
- При появлении дискомфорта или иной аномалии, прекратите использовать прибор немедленно.
- Используйте прибор, если воздушная трубка согнута
- Применение Пентамидина не подтверждено для использования с данным прибором.

Предостережения при хранении

- Не храните прибор под воздействием прямых солнечных лучей, в условиях высокой температуры или влажности.
- Храните прибор в недоступном для детей месте.
- Если не используете прибор, держите его в отключенном состоянии

Предупреждение при очистке

- Проверяйте воздушный фильтр, ротовой мундштук, распылитель и другие дополнительные компоненты перед каждым использованием. Грязные или изношенные детали должны быть заменены.
- Не погружайте прибор в жидкость. Это может привести к повреждению устройства.
- Отключите устройство от электрической розетки перед очисткой.
- Очищайте все необходимые детали после каждого использования, как указано в данном руководстве.
- Всегда удаляйте любые остатки медикаментов в резервуаре для медикаментов после каждого использования. Всегда проверяйте срок годности медикаментов при использовании с прибором
- Не храните воздушную трубку влажной или с остатками медикаментов в ней. Это может быть причиной бактериальной инфекции

МЕДИЦИНСКОЕ ПРЕДУПРЕЖДЕНИЕ: данное руководство и изделие не является заменой консультаций, предоставляемых врачом или другим медицинским работником. Информацию, содержащуюся в настоящем документе, или данное изделие нельзя использовать для самостоятельной диагностики или лечения или при выборе лекарства. Если у Вас есть или Вы подозреваете, что есть, медицинские проблемы, незамедлительно обратитесь к врачу.

Длительное использование предполагает применение прибора для распыления 2 мл медикаментов 2 раз в день по 10 минут при комнатной температуре (25°C).

Срок службы может варьировать в зависимости от условий использования.

- Основной блок 2 года
- Распылитель 1 год
- Воздушный фильтр 60 дней
- Маски для взрослых и детей 5 лет
- Воздушная трубка, ротовой мундштук 1 год

Технические характеристики изделия

Блок питания перем. тока	DC12V, 1A
Мощность	AC 100–240В, 50–60Гц
Потребляемая мощность	≤ 12 W
Уровень звука	≤ 55 дБА (1 метр от NC100)
Диапазон давления компрессора	≥ 16 фунт/кв.дюйм (110 кПа)
Диапазон рабочего давления	≥ 8 фунт/кв.дюйм (55 кПа)
Диапазон рабочего расхода	≥ 2.0л/мин
Диапазон рабочей температуры	50 до 104°F (10 до 40°C)
Влажность при эксплуатации	≤ 90% относительной влажности
Диапазон рабочего атмосферного давления	700–1060 гПа
Диапазон температур хранения	–4 до 140°F (-20 до 60°C)
Влажность при хранении	≤ 90% относительной влажности
Габариты (Д x Ш x В)	134.7мм x 88.3мм x 54 мм (5.3x3.48x2.13 дюймов)
Вес	286.5 г (без аксессуаров)
Емкость для лекарства	5мл (cc)