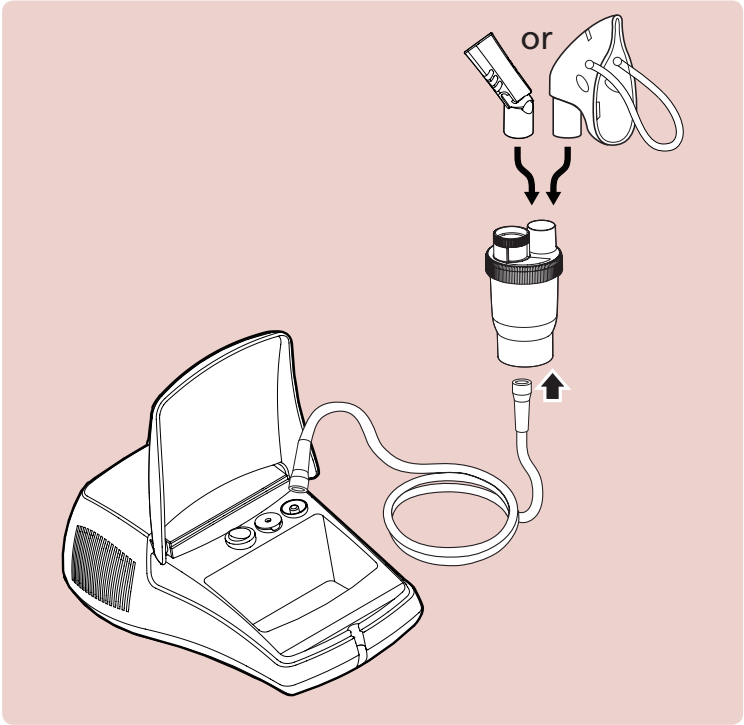


Operating your nebulizer

- After every use:
1. Unplug the unit from the power source.
 2. Allow the unit to completely cool.
 3. Carefully detach the air tubing from the nebulizer and pour out any remaining medication.
 4. Follow the cleaning procedures provided in this guidebook.



E Cleaning procedures

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

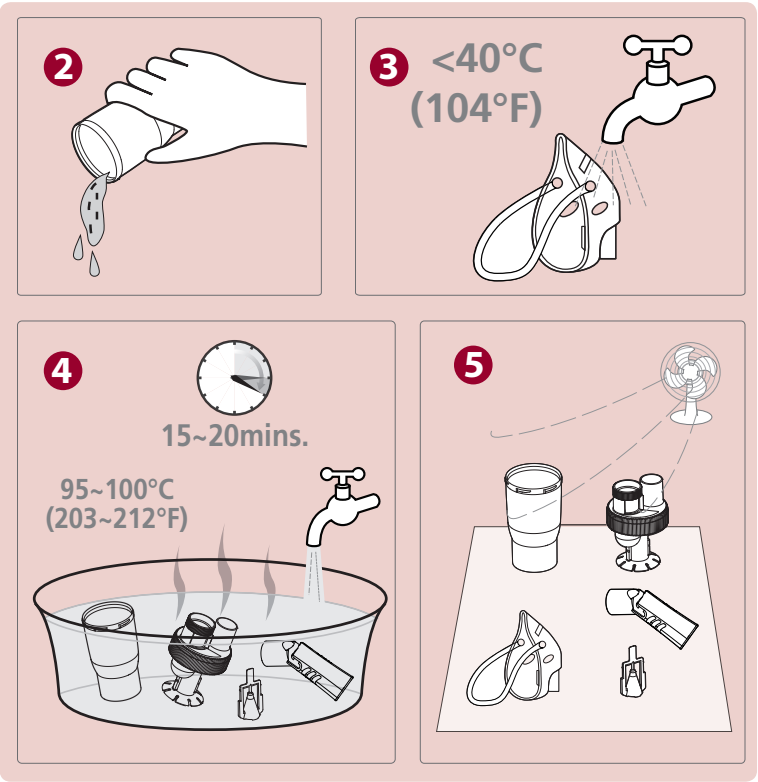
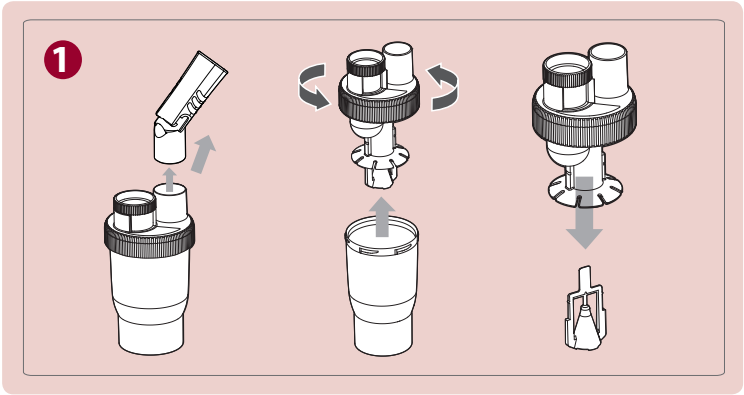
1. Make sure that the power-switch has been turned to the “OFF” position and the unit has been disconnected from the power source.
2. Disconnect the air tube from the nebulizer device.
3. Gently twist and pull up the cover of the nebulizer kit to open and separate.
4. Rinse the nebulizer kit and components with hot tap water.
5. Dry with clean towels or completely air dry.
6. 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, except the air tube. The nebulizer kit is dishwasher 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.

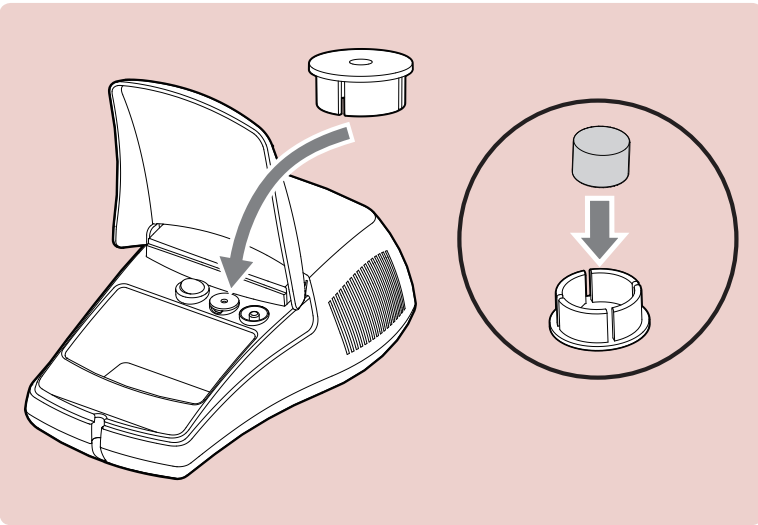


F Changing the air filter

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.

1. Remove the air filter cover by gently pulling forward.
2. Discard the gray filter.
3. Replace with a new, clean air filter.
4. Securely re-attach the air filter cover to the unit.

NOTE: Air filters cannot be cleaned or washed. Only NA100 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:

1. Unit does not operate when power switch is pressed: Check the AC connection to the outlet.
2. 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 .

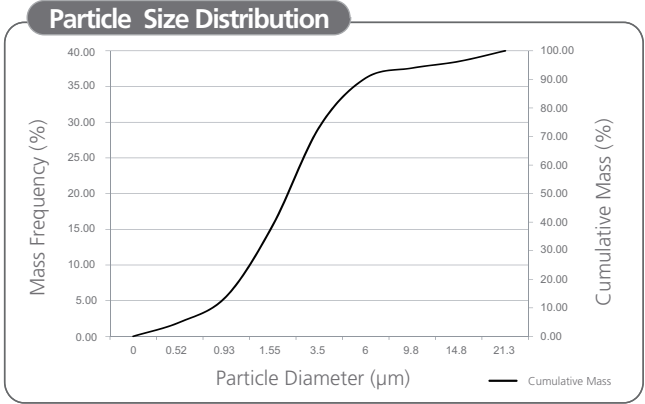


Protection against harmful ingress of water and particulate matter:

- 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 NA100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NA100 should assure that it is used in such an environment.			
Emission test	Compliance	Electromagnetic environment-guidance	
RF emissions CISPR 11	Group 1	The NA100 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 NA100 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 NA100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NA100 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	± 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	± 2kV for power supply lines ± 1kV for input/output lines	+ 2kV for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1kV line(s) to line(s) ± 2kV line(s) to earth	+ 1kV differential mode Not applicable	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 NA100 requires continued operation during power mains interruptions, it is recommended that the NA100 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	The NA100 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. mains voltage prior to application of the test level.			

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Guidance and manufacturer's declaration-electromagnetic immunity			
The NA100 is intended for use in the electromagnetic environment specified below. The customer or the user of the NA100 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 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the NA100 including cables, 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 80MHz to 800 MHz, d = 2,3 √P 800MHz to 2,5 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).
Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2,5 GHz	3 V/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:



EN Instruction Manual

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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 NA100 is used exceeds the applicable RF compliance level above, the NA100 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the NA100.			
b: Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			
Recommended separation distance between portable and mobile RF communications equipment and the NA100			
The NA100 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the NA100 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the NA100 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)		
1500kHz to 80MHz / d=1,2√P	1500kHz 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	0,23
	0,1	0,38	0,73
	1	1,2	2,3
	10	3,8	7,3
	100	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.			

Introduction

Thank you for purchasing a NA100 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 handle the unit of power cord with wet hands.
- 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 disassemble or attempt to repair the unit.

- Do not use the device in anesthetic or ventilator 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 component 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.

This instrument is covered by a 1 year guarantee from the purchase date. The guarantee is valid only on presentation of the guarantee card completed by the dealer confirming purchase date or the receipt. Nebulizer Components are not included. Opening or altering the instrument invalidates the guarantee. The guarantee does not cover damage, accidents or non-compliance with the instruction manual. Please contact Rossmax Service or distributors.

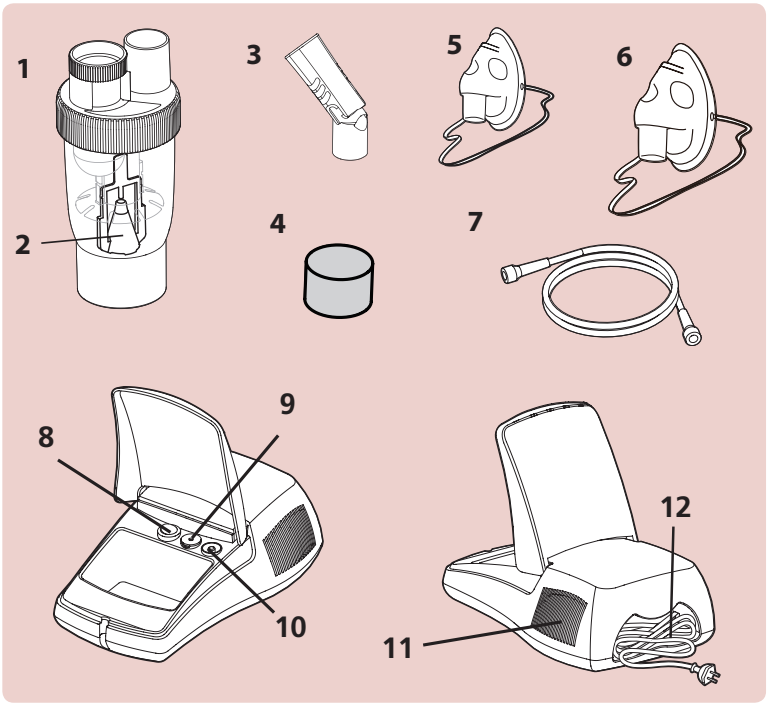
Product specifications

Power	AC 230V/50Hz or AC 220V/60Hz or AC 110V/60Hz
Power Consumption	≤ 130W
Sound Level	≤ 55 dBA (1 meter away from NA100)
Compressor Pressure Range	> 30 psi (207 kPa)
Operating Flow Range	≥ 4.0 lpm
Operating Temperature Range	10°C to 40°C (50°F to 104°F)
Operating Humidity Range	10 ~ 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	10 ~ 90% RH

Dimension (L x W x H)	280mmx190mmx100mm (11.02x7.48x3.93 inches)
Weight	1750g (without accessories)
Medication Capacity	5ml(cc)
Particle Size (MMAD)	≤ 2.4µm
Dv50 (Spraytec)	≤ 4.4µm
Average Nebulization Rate	Fully open Valve ≥ 0.4ml/min (0.9% Saline Solution) Closed Valve ≥ 0.22ml/min (0.9% Saline Solution)
Standard Accessories	Nebulizer Kit, Air Tube, Mouth-piece, Filters, Adult and child masks, Service manual
*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.	

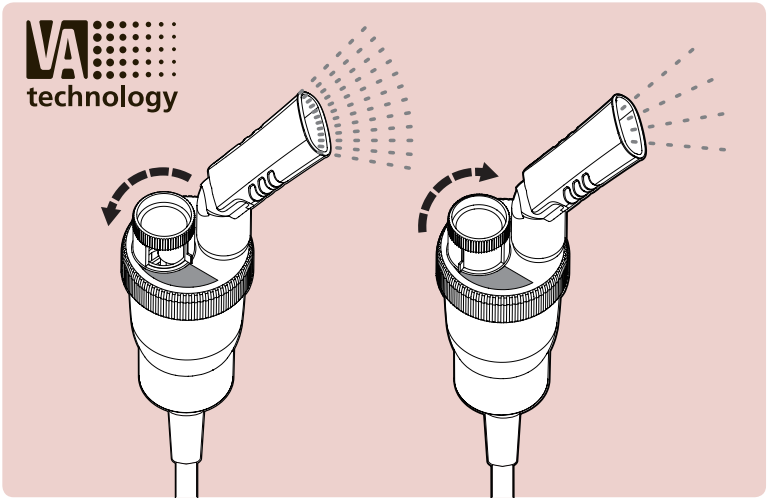
A Product identification

- | | | |
|------------------|-----------------|----------------------|
| 1. Nebulizer Kit | 2. Nozzle | 3. Angled Mouthpiece |
| 4. Air Filter | 5. Child Mask | 6. Adult Mask |
| 7. Air Tube | 8. Power Switch | 9. Air Filter Slot |
| 10. Air Output | 11. Air Intake | 12. Power Cord |



B Valve Adjustable Technology

The proprietary adjustable valve is able to deliver medications 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 0.22 – 0.4 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.

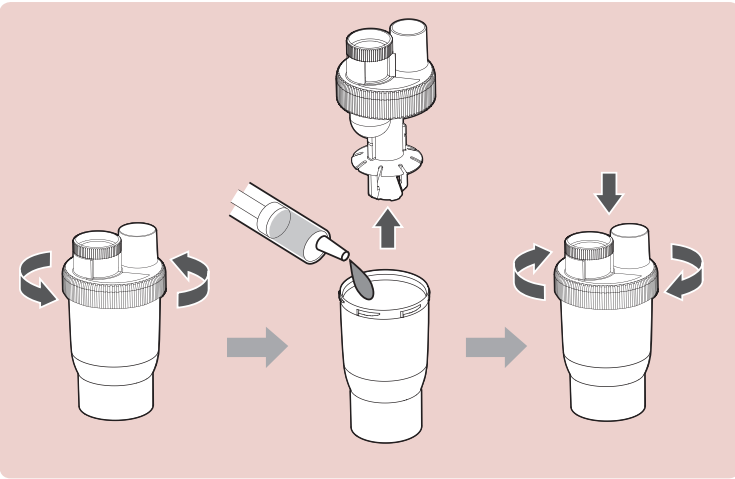
C Assembling your nebulizer kit

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.

1. Place the compressor on a flat, stable surface within reach.
2. Gently twist and pull straight up on the lid of the nebulizer to separate into two parts (medication cup and cover).
3. Make sure that the nozzle is properly installed on the upper cover. The stem inside the medication cup inserts into the tube of the nozzle.
4. Add the prescribed amount of medication to the medication cup.
5. 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.

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

NOTE: A 30-minute interval is recommended after each use. The compressor will automatically shut off if it becomes overheated. If / when this happens, immediately:

1. Press the power-switch to the “OFF” position.
2. Unplug the power cord from the outlet.
3. Allow the motor to cool for 30 minutes.

Before restarting the unit, make sure that the air vents are not obstructed.