

Mesh Nebulizer

User Manual

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1.Safety Precautions

1.1 Basic safety information

This section lists the basic safety information that users must pay attention to and follow when using nebulizer. Other safety information that is the same, similar, or relevant to the specific operation will appear in each section.



Warning

- 1)Before using this product,please read the user's manual carefully and use it accordingly.Please keep the user's manual property for reference at any time.(The pictures in this manual are for reference only)
- 2)This product should be purchased and used under the guidance of a doctor.
- 3)This device does not have frequency scanning function.
- 4)Do not use nebulizer if you have contusions, burns, inflammation, rash, trauma, or allergies.
- 5)Modification of this equipment is not permitted.In the case of equipment failure, please refer to the "6. Possible Problems and Resolutions" can simply eliminate the problem. Do not attempt to repair the device yourself. Please contact an authorized service center for repair.
- 6)When stored or used, keep away from infants and children and patients with mental illness(some parts are small enough to be swallowed. Be aware of the risk of strangulation in case this device is supplied with cables or tubes).
- 7)Hold the device as positive and vertically as possible at 90 degrees during use.
- 8)The device should not be used near high frequency electromagnetic transmitters.
- 9)The device should not be used near flammable air or oxygen-rich environment or anesthetic mixtures.
- 10)Do not use the device in the shower.
- 11)When cleaning, do not hold the whole device under running water to rinse, in case of water into the device.
- 12)Do not store the instrument in a humid and dusty environment to avoid affecting the life of the product or even damaging the product.
- 13)Follow your doctor's instructions,use the correct type of medication, dosage, length of use, and frequency of use.
- 14)If you have diabetes or other medical conditions, consult your doctor before using the device.
- 15)If you feel any discomfort during the use of the device, please stop using it immediately and consult the appropriate doctor.
- 16)The nebulizer can be used by more than one person, but the accessories (mouthpiece and mask (not equipped with the device)) in contact with the human body should only be used by the same person to prevent cross infection. If multiple people use one main unit with multiple attachments, personal attachments should be kept separately from the main unit.
- 17)Do not store the nebulizer when the medication cup contains liquid or water.
- 18)This device is not suitable for respiratory anesthesia system and ventilator system and does not drive any gas.
- 19)Do not allow the device to fall or be hit.
- 20)When the medication cup contains liquid, do not tilt it to avoid liquid leakage.
- 21)Tap water, purified water, mineral water is not suitable for use, if use the nebulization effect will be poor, it may also damage the mesh.The medicine solution or normal saline formulated by the doctor should be used.

- 22) Do not use cotton swabs or other objects to touch the mesh on the medication cup. Otherwise, the medication cup may become unusable.
- 23) The nebulizer is a medical device that must be used according to the doctor's instructions, the type, dosage, and method of use of the medication.
- 24) The nebulization rate of nebulizer vary with the medication used.
- 25) Check the nebulizer regularly to ensure that there is no obvious damage affecting safety and test performance. It is recommended to check at least once a week. If there is obvious damage, stop using the nebulizer and contact the manufacturer.
- 26) If the performance does not match the description or changes, discontinue use immediately and contact the manufacturer.
- 27) The use of accessories, detachable parts and materials other than those specified in this product instruction manual may cause the equipment to fail to work properly or achieve its intended purpose.
- 28) Be sure to use adapter that are dedicated and certified to security standards, otherwise it may cause fire or electric shock.. Power the device at the temperature of 15-35°C, humidity of 40-70%, and prevent infants, children, mental illness patients touch.
- 29) Using a solution, suspension, or emulsion different from that recommended by the manufacturer, in particular, a suspension and/or high-viscosity solution, can alter the particle size distribution curve, the mass median aerodynamic diameter (MMAD), aerosol output, and/or aerosol output rate, which can then be different from those disclosed by the manufacturer.
- 30) The disclosure of nebulizer performance is based on the test using adult ventilation mode, and may be different from the test for pediatric or infant population.
- 31) The materials used in the components could not be compatible with solutions/suspensions/emulsions that have not been evaluated.
- 32) Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

1.2 Symbols and Definitions

	Type BF applied part		Serial number		Keep dry
	Date of manufacture		Manufacturer		Stand-by
	Model number		Use-by date		Stacking limit by number
	Caution		Batch code		Keep away from sunlight
	Refer to instruction manual		Medical device		This way up
	Humidity limitation		Temperature limit		Fragile, handle with care

IP22	Protected against solid foreign objects greater than 12.5mm in diameter and dripping water when tilted up to 15°		To protect the environment, dispose of empty batteries at appropriate collection sites according to national or local regulations.
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1.3 Waste disposal

- 1) Please follow local laws to dispose of waste scrap.
- 2) Follow local ordinances and recycling instructions regarding to disposal or recycling of the device and device components, including used batteries and packaging box.
- 3)Declaration: Inexperienced responsible parties must contact their local authorities to determine the proper disposal of discarded parts and accessories that may present biological hazards.

2.Product Introduction

2.1 Mechanism of action

The respiratory system is an open system, in which the liquid is atomized into particles. After the patient inhales the mist, the mist can be directly adsorbed on the patient's mouth, throat, organs, bronchi, alveoli and other places, and the purpose of treatment can be achieved through mucosal absorption.

2.2 Intended Purpose

The nebulizer is designed to aerosolize liquid medications for inhalation by the patient.

The device may be used with pediatric (4 years and older), defined by the prescribed medication, and adult patients in medical facility, such as Hospital, clinic and doctor's office, in a room of general household.

2.3 Contraindications

Patients who are unconscious or are not breathing spontaneously.

2.4 Operating principle

The basic principle of the nebulization is shown in Figure 1. The device is composed of a medication cup and a mesh, of which, the mesh is composed of a vibrating film and circular piezoelectric ceramic piece. Through the piezoelectric ceramic piece, electric energy is converted into mechanical energy and ultrasonic vibration is generated, and the shock wave squeezes the liquid in the medication cup so that the the liquid is atomized through the micro-spray hole of the mesh and is ejected from the mesh to the mouthpiece or mask for inhalation.

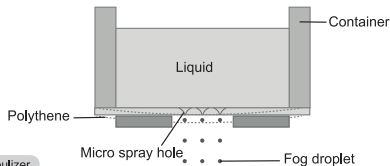


Figure1:Basic Principle of Mesh Nebulizer

2.5 Structural composition

The nebulizer is composed of a main unit, a medication cup ,mask ,mouthpiece and USB cable.As shown in Figure 2.

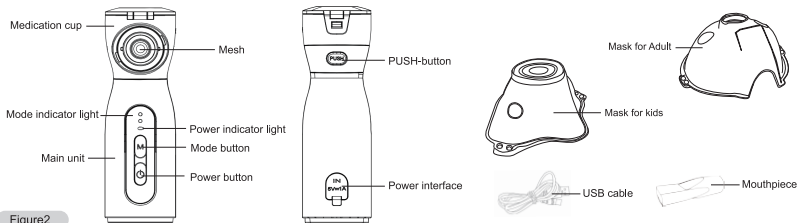


Figure2

! Note

- The image in the instruction may have slight differences with the actual instruments.
- Technical parameters and appearance change, without prior notice.

2.6 Product Features

- 1)The nebulizer has the characteristics of small volume, easy to carry and easy to use.
- 2)Alloy mesh and alloy vibrator are used to achieve high efficiency nebulization effect.
- 3)Low operating noise, operating noise is not more than 45 dB.

3.Installation Instructions

3.1 Unpacking inspection

Before installing and commissioning the product, the user should first check whether the appearance of the product is good and whether the type and quantity of the accessories are consistent with the list of accessories. If there is any damage or missing, please contact the supplier or manufacturer in time.

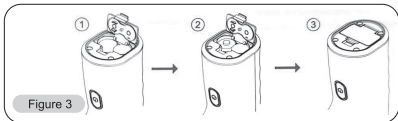
3.2 Install / replace the batteries

3.2.1 Install batteries

This nebulizer uses two AA batteries, turn the main unit bottom face up, open the battery cover, loading into the batteries according to the positive and negative symbols on the bottom cover, then cover the battery cover, as shown in Figure 3.

3.2.2 Replace the batteries

When the battery voltage is close to or below the lower limit of operating voltage, the power indicator light and mode indicator light will blink simultaneously, indicating that the power is running out. Please replace the batteries in time.



⚠ Attention

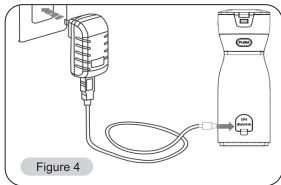
- When replacing the batteries, make sure that there is no medicine in the medication cup or remove the medication cup to avoid the leakage of medicine or water.
- Do not mix the different types of batteries together.
- Do not install the wrong positive electrode "+", negative electrode "-".
- Battery life depends on the capacity and condition of the batteries.
- If you don't use the nebulizer for a long time (more than 3 months), please take out the batteries.

3.3 Using adapter

- 1) Insert the jack connector of the USB cable into the cable jack on the main unit.
- 2) Plug the USB cable into the adapter and insert the adapter into the socket. See the Figure 4.

⚠ Attention

- The USB cable can not charge batteries.
- Please remove the batteries before using the USB cable.
- It is recommended to keep the product unplugged when not in use.
- Use the power socket separately, otherwise it is likely to cause a fire or electric shock.
- Please do not use wet hands to pull the plug on the adapter, otherwise it may cause electric shock or injury.



3.4 Install / remove the medication cup

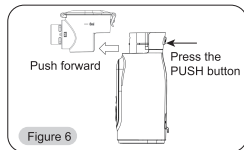
3.4.1 Install the medication cup

With the medication cup assembled, a slight "click" sound indicates that the buckle is held; the installation method is shown in Figure 5.



3.4.2 Remove the medication cup

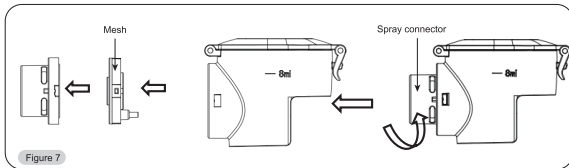
Press the PUSH button at the back of the main unit, push the medication cup to the front of the main unit, and remove the medication cup, show in Figure 6.



3.4.3 Install / remove the mesh of medication cup

1) Rotate the spray connector counterclockwise and remove the spray connector and the mesh in turn. show in Figure 7.

2) Install the mesh and spray connector in turn, turn the spray connector clockwise.



⚠ Attention

- Please make sure that the medication cup is assembled properly. Otherwise, the electrode may fail to conduct and the nebulizer cannot nebulize normally.
- Please keep the main unit and medication cup electrode clean, otherwise the nebulizer may be unable to nebulize normally.
- The three metal rods on the medication cup compatible with the three electrodes are also the electrodes.
- When removing the medication cup, please make sure that the PUSH button is really pressed before pushing the medication cup, so as not to damage the nebulizer.
- Do not insert fingers or other foreign objects from the mouthpiece position and touch the mesh to avoid causing damage to the mesh.

3.5 Install the mask or mouthpiece

- 1) For the first time, clean the mask or mouthpiece with pure water and let dry before use.
- 2) Please use masks and mouthpiece specifications provided by manufacturer. Figure 8 shows the installation method.

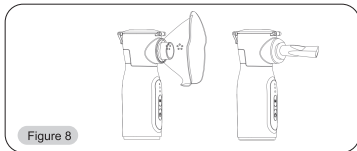


Figure 8

4. Instructions for Use

4.1 Prepare for treatment

Clean and disinfect before use and after each single use.

4.2 Add the medication solution

Open the medication cup cover, pour in the liquid medicine, cover the medication cup cover and fasten the clasp, the recommended capacity is between 2ml and 8ml, the medication cup cover must be covered to prevent medication leakage, as shown in Figure 9.

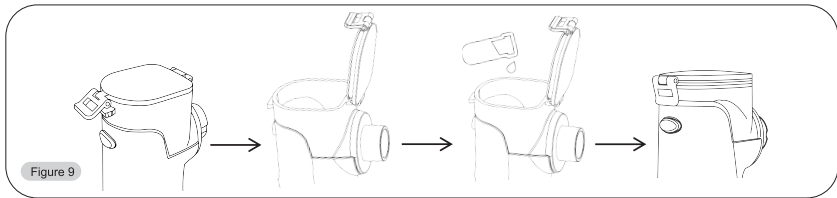


Figure 9



Attention

- 1) Budesonide, salbutamol, and other medications can be used in the nebulizer, but pentamidine is not suitable. Please follow your doctor's advice on the specific type of medication and dosage.
- 2) Do not shake or carry the nebulizer with liquid medicine or other liquids in the medication cup.
- 3) Do not use high concentration, high viscosity, suspended liquid and volatile liquid, because it may damage the mesh.

- 4) Each time of nebulization, inhalation time should not exceed 25 minutes, such as excessive liquid should be included in the total liquid intake. Excessive dosage may cause pulmonary edema or water intoxication.
- 5) When using unusual medication (such as oily medication), check with the manufacturer about the availability of the equipment.

4.3 Method of operation

- 1) Press the power button, the power light is on, nebulization starts, the user can short press the mode button as required to change the nebulization rate. The nebulization rate is divided into three gears: Low, middle, high. The mode indicator will also change: Low gear: lower white mode indicator lights up, middle gear: upper white mode indicator lights up, high gear: both white mode indicators light up at the same time. The default nebulization rate is Low gear.
- 2) Operation method of mouthpiece: When using, the nebulizer should be vertical as far as possible and the mouthpiece should be put into the mouth (slight swing will not affect the use). Start breathing slowly and deeply. To increase the effectiveness of the treatment, hold your breath briefly after inhaling the medication. During the treatment, stay quiet and relaxed, taking care not to inhale too quickly. If you need to stop treatment for a short time, you can remove the mouthpiece from the mouth and put it into the mouth after rest to continue inhaling.
- 3) Operation method of mask: When using, the nebulizer should be as vertical as possible within 90 degrees, and the mask should be gently fastened on the nose and mouth. Breathe slowly and deeply through your nose or mouth. To increase the effectiveness of the treatment, you can hold your breath briefly after inhaling the medication. During the treatment, stay quiet and relaxed, taking care not to inhale too quickly.
- 4) When the liquid is exhausted or low water levels, Two white mode lights flash three times, the nebulizer will automatically shut down or press the power button to turn it off (indicator light go off).



Attention

- Since there are medications of different characteristics, the nebulizer cannot be automatically turned off when some of the medication is exhausted. At this time, the switch should be turned off immediately to avoid damage to the mesh.
- When using, hold the nebulizer smoothly by hand. There is a venting hole on the cover of the medication cup. Do not cover it with your hands or other objects or normal nebulization function will be affected.
- After treatment, there will be a small amount of residual medication. Since the residual medication is not effective for the treatment, please pour out the remaining medication and do not use it any more.
- The amount of medication consumed by the mask is larger than that of the mouthpiece. When inhaling with a mask, do not cover the mask vents with your hands or other objects.
- It is recommended to avoid eating within 30 minutes before and after using the nebulizer. Please wash your face in time after using the nebulizer.
- Each user uses mouthpiece or mask separately to avoid cross-infection or transmission of harmful substances.
- When the medication is about to run out, it is recommended that the user tilts the front of the nebulizer (the side with the button) slightly toward himself to facilitate the nebulization of the remaining medication that is in contact with the mesh.



Attention

- After pressing the button, the nebulizer will go through a short start-up period (within 2 seconds) before nebulize normally.
- During use, do not strongly shake or vibrate the nebulizer, otherwise it may cause automatic shutdown.
- Children or people with mental illness need to use a nebulizer under adult supervision.
- For parts of liquid, there will be lots of foams gathering near to mesh in medication cup during nebulization, which can easily damage mesh due to its no-load vibration. At this time, press the switch to shut down nebulizer, shake it gently and then press the switch again to restart.
- If the user feels any discomfort during the nebulization process, please turn off the nebulizer immediately and consult a doctor promptly.

5. Cleaning and disinfection

5.1 Cleaning

- 1) Clean the product's parts after each use, such as mouthpiece, mask and medication cup.
- 2) Remove the mouthpiece or mask from the medication cup.
- 3) Open the medication cup and pour out the remaining liquid.
- 4) Inject a small amount (2-5 ml) of purified water into medication cup and tighten cup cover. Gently shake the medication cup to dissolve the residue in pure water, then open the medication cup and pour out the liquid.
- 5) Inject a small amount (2-5ml) of purified water, long press the power button until the mode indicator light flashes alternately. At this time, the nebulizer enters the cleaning mode, and sprayed out purified water, so as to clean the residual liquid on the mesh.
- 6) Clean the medication cup (open the cover), mouthpiece and mask with purified water (pay attention to the mesh should be immersed in water). After cleaning, please use new medical gauze to remove moisture and dry thoroughly.
- 7) Wipe the shell of the main unit. If any medications remain at the electrode contact, moisten the new medical gauze with water and wring it out, then wipe the dirt at the electrode.
- 8) After cleaning, it must be thoroughly dried and stored in a dry and clean place to avoid contamination.
- 9) Cleaning parameters:
Nebulization cleaning time: 1min
Soaking and cleaning time of medication cup, mask and mouthpiece: 15min
Cleaning method: soaking

5.2 Disinfection

- 1) Be sure to disinfect the mouthpiece, mask and medication cup after each use. If the parts are seriously contaminated, please replace the parts in time.

Recommended disinfectant: 75% Ethyl alcohol.

- 2) Disinfection method: Use a disposable water cup with a capacity of more than 300ml and inject about 200ml of the above-mentioned disinfectant. Immerse the medication cup (open the cover), mouthpiece or mask into the alcohol of the water cup and let it stand for no less than 15 minutes. For more effective disinfection, gently shake the cup. Then with distilled or purified water, repeat the above three times. After disinfection, please use new medical gauze to remove moisture and dry thoroughly.
- 3) If any medication is spilled on the surface of the medication cup, wipe it with an alcohol-soaked gauze.



Attention

- 1) Before cleaning and maintenance, be sure to turn off the nebulizer power or remove the external power adapter.
- 2) After disinfection, please rinse thoroughly with pure water to avoid alcohol residue.
- 3) Be sure to clean the remaining liquid after each use, otherwise, it will cause the nebulizer mesh to clog and affect the nebulization effect.
- 4) Do not wipe the nebulizer with volatile liquid such as benzene, gasoline or diluent.
- 5) Do not use cotton paper or other cloth to dry the water, otherwise the residual dust or cloth in the medication cup and on the nebulizer will cause the nebulizer cannot nebulize normally.
- 6) Do not use any other detergent or tap water to clean the medication cup or other parts except pure water.
- 7) If the residual liquid is difficult to remove, can use warm water cleaning or repeated cleaning.
- 8) The cleaning mode is only used for the cleaning of mesh and can not be used for normal liquid medicine nebulization.
- 9) The device should not be care and maintenance while in use.

6. Possible Problems and Resolutions

No.	Problem	Possible reason	Solution
1	The power indicator light does not turn on and nebulizer does not nebulize.	1. The batteries are depleted. 2. The batteries are inserted in the wrong direction. 3. The button doesn't work. 4. The medication cup was not assembled in place. 5. Medication cup has no medication. 6. The electrodes are dirty. 7. Medications are not suitable 8. The mesh is broken 9. The adapter is not connected correctly to a power outlet.	1. Replace the new batteries 2. Re-insert the batteries in the correct direction. 3. Please contact the authorized repair center or the manufacturer 4. Reassemble the medication cup and turn on the nebulizer. 5. Fill with medication. 6. Wipe the electrodes and air dry 7. Consult your doctor about what medications are suitable for nebulization 8. Replace with a new one. 9. Check that the adapter is connected to a power outlet and main unit. Unplug then reinsert the plug if necessary.

No.	Problem	Possible reason	Solution
2	The nebulization rate is extremely low.	1. Medications are not suitable 2. The mesh is stained or clogged. 3. The medication cup was not fully assembled.	1. Consult your doctor about what medications are suitable for nebulization 2. Clean the mesh. 3. Reassemble the medication cup and turn it back on.
3	After startup, the power indicator flashes and goes off.	1. Battery is low 2. The medication cup was not assembled in place. 3. The electrode is dirty 4. The medication is not fully in contact with the mesh. 5. There is no medication or air bubble in the medication cup.	1. Replace the new batteries 2. Reassemble the medication cup and turn on the nebulizer. 3. Wipe the electrodes and air dry 4. The nebulizer is tilted towards the user so that the liquid is in contact with the mesh. 5. Shake gently to remove air bubbles or determine whether to add liquid to continue nebulize.
4	During use, the nebulizer turns off automatically	1. The medication is exhausted 2. Shake the nebulizer during use 3. The liquid is not fully in contact with the mesh.	1. Fill with medication. 2. Hold the nebulizer smoothly 3. The nebulizer is tilted towards the user so that the liquid is in contact with the mesh.
5	The medication is depleted but the nebulizer won't shut down.	1. Some medications may create some foam in the medication cup. 2. Residue of dirt or water on the electrodes. 3. Medication cup is broken.	1. Shut down the nebulizer and clean the foam (do not touch the mesh). 2. Shut down the nebulizer and wipe the electrode. 3. Replace the medication cup.
6	The medication is leaked.	1. Medication cup damage or silicone aging. 2. The air vent on the medication cup is blocked.	1. Replace the medication cup 2. Clean the air vent of the medication cup.

Reserves the right to technical change appearance, our products are subject to change without prior notice, please forgive me!

7. Manufacturer's Declaration of the EUT

Statement:

- The nebulizer or user should use the product in the electromagnetic environment specified in the following table, otherwise it may cause abnormal operation of the product.
- The use of accessories and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment.
- The nebulizer should not be used adjacent to or stacked with other equipment. In case adjacent or stacked use is necessary, the nebulizer should be observed to verify normal operation in the configuration in which it will be used.

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

1.The basic performance of this product: Nebulization function.

2.The following cables must be used to comply with electromagnetic emission and anti-interference requirements:

Name	Length(m)	Whether to black	Note
USB cable	1	No	---

Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission	
The nebulizer is intended for use in the electromagnetic environment specified below. The customer or the user of nebulizer should assure that it is used in such an environment.	
Emissions test	Compliance
Radiated emissions CISPR 11	Group 1 Class B
Conducted emissions CISPR 11	Group 1 Class B
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations / flicker emissions IEC 61000-3-3	Compliance

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic immunity		
The nebulizer is intended for use in the electromagnetic environment specified below. The customer or the user of the nebulizer should assure that it is used in such an environment.		
Immunity test	EN 60601 test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 15 kV air	± 8 kV contact ± 15kV air
Radiated RF EM fields IEC61000-4-3	10 V/m ^{a)} 80 MHz – 2,7 GHz ^{b)} 80 % AM at 1 kHz ^{c)}	10 V/m ^{a)} 80 MHz – 2,7 GHz ^{b)} 80 % AM at 1 kHz ^{c)}

Proximity fields from RF wireless communications equipment IEC61000-4-3	Table 3	Table 3
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode
Conducted RF IEC 61000-4-6	3 V 0, 15 MHz -80 MHz 6 V in ISM and amateur radio bands between 0, 15 MHz and 80 MHz 80 % AM at 1 kHz	3 V 0, 15 MHz -80 MHz 6 V in ISM and amateur radio bands between 0, 15 MHz and 80 MHz 80 % AM at 1 kHz
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % U_T ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T ; 1 cycle and 70 % U_T ; 25/30 cycles Single phase: at 0° 0 % U_T ; 250/300 cycle	0 % U_T ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % U_T ; 1 cycle and 70 % U_T ; 25/30 cycles Single phase: at 0° 0 % U_T ; 250/300 cycle
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m
Proximity magnetic fields IEC61000-4-39	Table 4	Table 4

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

Table 3 - Test specifications for enclosure port immunity to RF wireless communications equipment

Test frequency (MHz)	Band ^{a)} (MHz)	Service ^{a)}	Modulation ^{b)}	Immunity TEST LEVEL (V/m)
385	380 -390	TETRA 400	Pulse modulation ^{b)} 18 Hz	27
450	430 - 470	GMRS 460, FRS 460	FM ^{b)} ± 5 kHz deviation 1 kHz sine	28
710	704 - 787	LTE Band 13, 17	Pulse modulation ^{b)} 217 Hz	9
745				
780				
810	800 - 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation ^{b)} 18 Hz	28
870				
930				
1 720	1 700-1 990	GSM 1800;CDMA 1900; GSM 1900; DECT; LTE Band 1, 3 4, 25; UMTS	Pulse modulation ^{b)} 217 Hz	28
1 845				
1 970				
2 450	2 400-2 570	Bluetooth,WLAN,802.11 b/g/n, RFID 2450,LTE Band 7	Pulse modulation ^{b)} 217 Hz	28
5 240	5 100-5 800	WLAN 802.11 a/n	Pulse modulation ^{b)} 217 Hz	9
5 500				
5 785				

If necessary to achieve the IMMUNITY TEST LEVEL ,the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61 000-4-3

a)For some services, only the uplink frequencies are included.

b)The carrier shall be modulated using a 50 % duty cycle square wave signal.

c)As an alternative to FM modulation, the carrier may be pulse modulated using a 50 % duty cycle square wave signal at 1 8 Hz. While it does not represent actual modulation, it would be worst case.

Table 4 – Test specifications for ENCLOSURE PORT IMMUNITY to proximity magnetic fields

Test frequency	Modulation	IMMUNITY TEST LEVEL (A/m)
30 kHz ^{a)}	CW	8
1 34,2 kHz	Pulse modulation ^{b)} 2,1 kHz	65 ^{c)}
1 3,56 MHz	Pulse modulation ^{b)} 50 kHz	7,5 ^{c)}
a)This test is applicable only to ME EQUIPMENT and ME SYSTEMS intended for use in the HOME HEALTHCARE ENVIRONMENT b)The carrier shall be modulated using a 50 % duty cycle square wave signal. c)r.m.s., before modulation is applied.		

8.Replacable Parts Description

- 1)The mesh of medication cup is a consumable part and no warranty is provided. Under normal circumstances, The lifetime of the mesh in the medication cup varies with the medication used.If the nebulization rate becomes small or uneven after a long time of use, please replace the mesh of the medication cup in time.
- 2)Please contact the manufacturer or distributor if you need to purchase the mesh of medication cup or mouthpiece and mask.
- 3)Only the parts and accessories made by the original factory can be used. If the accessories and parts are not listed in the manual, the warranty will be void.
- 4)After each use of the equipment, please clean and disinfect the medication cup, mask and mouthpiece according to the instructions.
- 5)Mouthpiece and mask are non-sterile products. Do not use them in sterile environments.
- 6)Do not use atomizing accessories (and mask) when the packaging is damaged.
- 7)Mouthpiece and mask don't use after the expiration date.
- 8)Mouthpiece and mask are consumables and should be disposed of as medical waste at the end of their service life.

9.Appendix

9.1 Product Specifications

Power	USB DC 5V / Batteries DC 3V(AAx2) Adapter: Input AC 100-240V 50/60Hz Output DC5.0V
Power Consumption	Approx. 2W
Medication Container Capacity	8ml
Electrical safety requirements	internal power supply equipment, (When using an adapter, it belongs to class II,) type BF application.
Degrees of protection provided by enclosures (IP code)	IP22

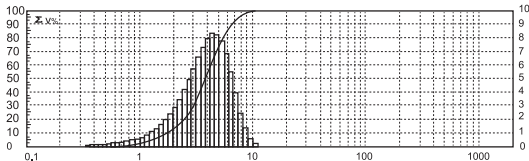
Operation mode	Continuous operation
Vibrating frequency	110kHz $\pm$ 10%
Sound	$\leq$ 45dB(A)
Water temperature in medication cup	$\leq$ 50°C
The temperature rise of the solution in the medication cup at work	$\leq$ 15°C
Nebulization rate	$\geq$ 0.15ml/min
Residual Volume	$\leq$ 0.5 ml
Continuous operating time	More than 1 hour (use 2 x new "AA" 1.5V alkaline batteries)
Working Condition	Temperature range: 5°C ~ 40°C, Relative humidity range: 15% ~ 80%, Atmospheric pressure range: 86kPa~106kPa
Transport and storage conditions	Ambient temperature range: -20°C~+55°C, Relative humidity range: 10%~93%, Atmospheric pressure range: 86kPa~106kPa
Control function	With low water level automatic stop function
The time required for equipment to warm/cool from the minimum/maximum storage temperature between uses until it is ready for intended use	About 30min
Dimension	Approx.125x 52 x 48mm
Weight	Approx.91g
Service life	Main unit: 3 years
Particle Size	3 μ m $\pm$ 25%
Respirable fraction($\leq$ 5 μ m)	$\geq$ 60%

9.2 Equivalent volume particle size distribution curve

Test conditions: ambient temperature to be set at $23\pm 2^{\circ}\text{C}$, relative humidity to be set at 53%, use 0.9% physiological saline and our company's instrument test.

Measured values reflect internal data obtained by laser diffraction method, according to EN 13544-1.

Performance may vary with the mesh and medication used such as suspensions or high viscosity. More information can be obtained from the relevant medicine manufacturer.



Note

- When the storage temperature is lower than 5°C , the nebulizer should be returned to normal operating conditions before use!
- Store in a well-ventilated room and avoid vibrations during transportation.

9.3 Components

Components	Main unit	Medication cup	Storage bag	User manual	USB cable	AA batteries(Optional)	Masks(one for adults and one for children)
Quantity	1 set	1 pc	1 pc	1 pc	1 pc	2 pc	2 pcs
If you need further accessories, please contact the supplier							

Services

1. One year free warranty period will be provided after sales.
2. Our company cannot provide the free warranty service due to the malfunction caused by personal reason, details as follow:
 - 1)The malfunction caused by disassemble and modify the product.
 - 2)The product inner malfunction caused by dropping while picking up or operating.
 - 3)The malfunction caused by improper used or lack of reasonable cared.
 - 4)The malfunction caused by operating not following the operator's manual .
 - 5)The malfunction caused by natural disasters, Such as flooding , fire.
 - 6)The malfunction caused by improper repaired by repaired shop which isn't our authorized.
3. Please show your valid warranty card and shopping vouchers when you need free service.
4. Please bring the product to repaired shop which is our authorized when you need free repaired.
5. When performing warranty service, if needed, you can provide information on product components to circuit diagrams and repairable identified by our qualified technical personnel.
6. We will collect reasonable charge when we repair some malfunctions which out warranty service.

