

MedPro®

SONAIR™

ULTRASONIC MESH NEBULIZER



Instructions

Read thoroughly before operating the nebulizer
Save these instructions for future reference



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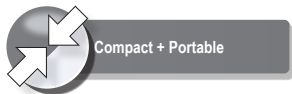
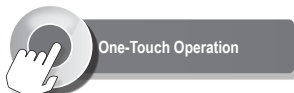
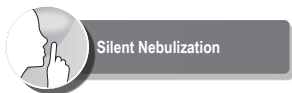
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Thank you for purchasing the Sonair™ Mesh Nebulizer. By selecting this product, you have chosen a high quality, innovative device.

Before using the Sonair Nebulizer for the first time, please read through this manual carefully. If you still have any questions regarding its use, visit the A.M.G. Medical website or contact our Customer Service team at **1-800-363-2381**.

This device is intended for use in the treatment of respiratory conditions. Mesh nebulizers use micro pump technology for aerosol production. High frequency mesh nebulization of liquid medication delivers ultra-fine mist permeating the lungs faster for convenient and effective respiratory treatment.

The Sonair Nebulizer is an easy to use device with only One-Touch Operation. This compact nebulizer is portable allowing you the flexibility to use at home or at work. Sonair's size also makes it perfect for travel, it can fit into a brief case, purse or backpack. Even more, Sonair is ultra-silent making it convenient to use anywhere. The soundless operation of the device enables discrete use with your medication within reach wherever you go.



DO NOT USE THE SONAIR NEBULIZER WITH: Pentamidine, Pulmonary Edema Patients, Acute Asthma, and Acute Pulmonary Infarction Episodes

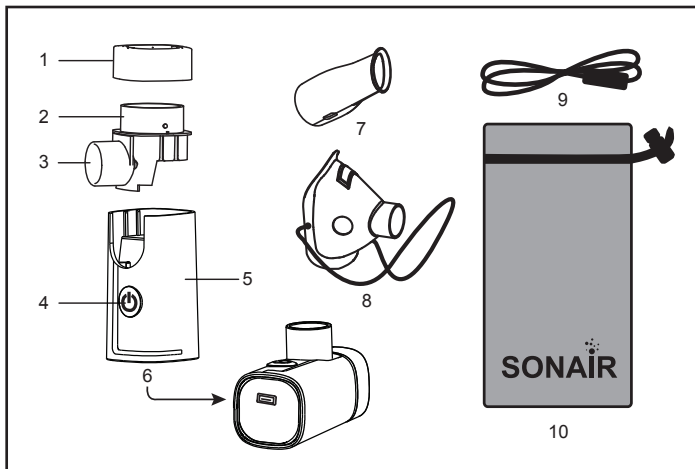
- This nebulizer is a medical device. Only use medications as prescribed and instructed by your healthcare professional.
- Only use the nebulizer for its intended purpose, for inhalation therapy. Any other form of use constitutes an improper use and is therefore dangerous.
- Clean and disinfect the medication cup and accessories before first use.
- To reduce the risk of increased bacterial growth, infection, illness or injury from contamination, thoroughly clean and dry all parts along with accessories of any moisture or condensation at the end of every treatment, following the instructions in this manual.
- Stop using the device if the components are damaged or fall into water accidentally.
- The Nebulizer and all accessories are for single-patient use only. Do not share device.
- Prior to use, make sure the device and accessories (e.g. mouthpiece and mask) are correctly assembled as per this instruction manual. Use of improperly assembled accessories could alter delivery of medication, and therefore the effectiveness of treatment.

- Do not shake the nebulizer during operation.
- Do not drop the nebulizer.
- Never use in environments with high humidity (eg: bathroom)
- Never use in rooms where aerosols (sprays) are used or pure oxygen is being administered. Do not use it near highly flammable substances, gases or explosives.
- Do not use near shortwave or microwave therapy equipment.
- Do not use the nebulizer near a heating device or an open flame. Do not use a microwave, oven, or fan to dry nebulizer and accessories.
- Do not expose the nebulizer and accessories to corrosive liquids and gases.
- Please use original parts and accessories.
- Keep the unit away from water. Do not immerse the unit in any liquid. Do not use while bathing. Never operate the nebulizer if it has any damaged parts or if it has been dropped or submersed in water or other liquids.

SAFETY PRECAUTIONS

- Never use liquids which contain ester, fatty or suspended particles. Only use healthcare professional prescribed medications for nebulizing.
- Close supervision is necessary when this product is used by or near children and/or persons with special needs. Never use this unit when sleeping or drowsy.
- This product contains small parts that may represent a choking hazard for small children.
- Children under the age of 3, as well as any patient who is unable to correctly use this unit with a mouthpiece under supervision, should use a mask.

WARNING: Always ensure close adult supervision when administering treatment to a child. Do not leave a child unattended during treatment.



1. Lid
2. Medication Cup
3. Spray Nozzle
4. Power Switch
5. Unit

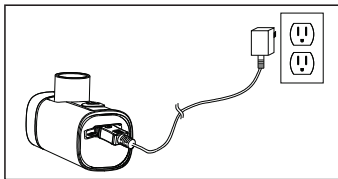
6. Mini USB Port
7. Mouthpiece
8. Mask (2 included)
9. USB Cable
10. Accessory Bag

1. Remove the unit and all accessories from package. When using the Sonair Nebulizer for the first time or after not using it for a long period of time, remember to clean and disinfect the nebulizer including the medication container, mesh metal, spray nozzle, mask, and mouthpiece prior to use. Always keep nebulizer clean. For details refer to the section - Cleaning and Disinfecting.

Note: Clean, disinfect, dry all parts before assembly.

2. Power Supply
Before use, charge your Sonair rechargeable lithium battery with the enclosed USB cable. It can be plugged into a computer's USB port or into a wall socket using an adapter (not included) as illustrated in Figure 1.

Figure 1



Charge time: 1.5 hours
Operation time: 60 Minutes (Approx.)

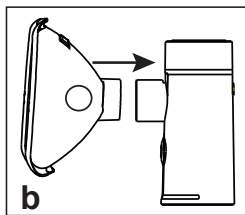
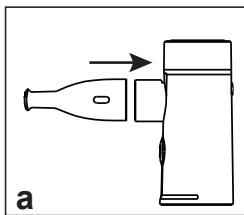
DC 5.0V/1.0A
Output Voltage

Low Battery

When the blue indicator light flashes, charge the battery as soon as possible. The indicator light will turn green during charging, and will turn off when the unit is fully charged.

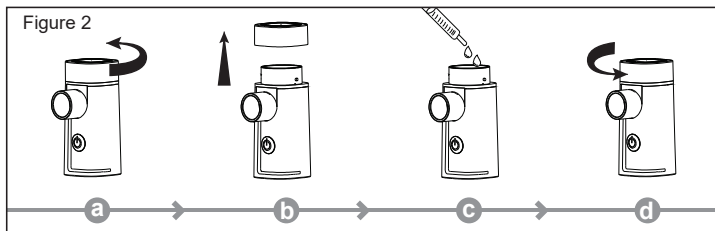
Note: Charge the Sonair Nebulizer at least once per month even when not being used (in storage).

3. Insert the mouthpiece (a) or the mask (b) directly into nebulizer nozzle, as illustrated.



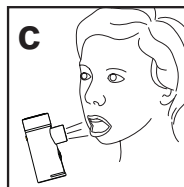
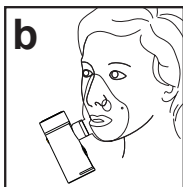
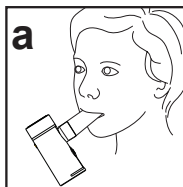
1. Wash hands with soap and warm water, then dry completely with a clean towel.
2. Ensure that the medication cup and accessories have been cleaned and / or disinfected before first use, as well as after the last treatment of the day. Refer to the cleaning and disinfecting instructions in this manual.
3. Open the nebulizer cover (a-b), fill the nebulizer medication cup with prescribed medication (c) and close the nebulizer cover (d) as indicated in Figure 2.

Note: Do not exceed the maximum capacity of the medication compartment. Please do not fill more than 10 ml per treatment.



4. Nebulization

- 1) Click power key  to start nebulization
- 2) Hold the device so that the medication stays in contact with the nebulization mesh.



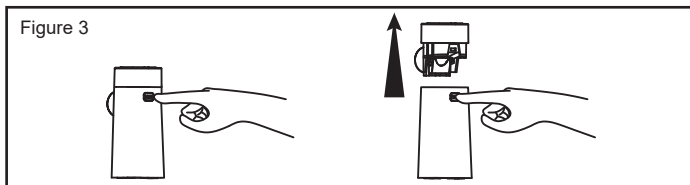
- 3) If using the mouthpiece (a), bring it into mouth and close lips slightly to facilitate nebulized medication flowing deep into the bronchial tubes.
- 4) If using a mask (b), place it over your mouth and nose as illustrated and fasten the elastic strap around the back of your head.
- 5) For direct inhalation (c), hold the device to ensure nebulized medication intake near the mouth.

OPERATING INSTRUCTIONS

- 6) Inhale the liquid medication mist. Always be calm and relaxed when you inhale. If you want to lay in bed for treatment, it is suggested to put a pillow behind your back so that you can keep the spine straight. Breathe in slowly and deeply so that the nebulized medication can reach fully into the bronchial tubes.
- 7) Hold device to keep medication in contact with nebulizer mesh. Do not shake device during treatment.
- 8) The nebulizer can be set for 10 minutes, and will then automatically turn off. If you need to continue nebulization, press the power key  to complete your treatment.
- 9) After completion of treatment, close the device by pressing the power key. If the power adapter is connected, unplug it from the electrical outlet.
- 10) Remove the mouthpiece/mask.
- 11) Remove the residual medication from the nebulizer medication cup and clean it along with all accessories (mask and mouthpiece). See Figure 3 for “how to remove medication cup”.

The following items should be cleaned after each use: nebulizer nozzle, medication cup, metal mesh in nebulizing head, mouthpiece and mask.

1. Before cleaning, turn off the device by pressing the power key .
2. Remove all components including the mask, mouthpiece and medication cup from the device. To remove the medication cup, press the button on the back and lift the medication cup at the same time. (Figure 3)



3. Wash and disinfect the nebulizer nozzle, medication cup, mask, and mouthpiece with warm purified soapy water (Below 40°C) or in medical disinfectant. DO NOT WASH THE MAIN UNIT.

4. Immediately after cleaning, dry the nozzle, medication cup and accessories with medical gauze. Note that the metal mesh in the nebulizing head should not be touched with any sharp or rough objects. Gently dry the water inlet and outlet of the nebulizing head with a medical swab.
5. If there is dust on the surface of the main unit, wipe it off with a (moistened) gauze. Then use dry gauze to wipe the main unit.
6. Once the unit and accessories are completely dry, store them in a clean storage bag.

NOTE

- Medication will build up around the nebulizer nozzle and mesh. After each use, clean off all residue with medical gauze. Do not touch the mesh disc spray area
- Do not wash the main unit — Do not immerse in water
- Avoid using distilled water

Storage

- Store the device in a clean, dry place and protect it against heat, sunshine, and moisture.
- Make sure the nebulizer has been cleaned and sterilized thoroughly after each use.
- Make sure that the nebulizer and all accessories are completely dry.
- Never place any heavy objects on the device.
- Remember to keep any heating device and open flames away from the storage area.
- Refer to the Specifications section in this manual for storage environment temperature and humidity conditions. The device may not work if the temperature and voltage conditions are different to those defined.

Maintenance

Do not attempt any repairs to the device or any of its accessories. Contact us at **1-800-363-2381** for repair information.

- The manufacturer will not be held responsible for the results of maintenance or repairs by unauthorized persons.
- Check the device before each use for signs of wear and/or damage. Replace worn items as required.

DISPOSAL

- Please dispose of the device in accordance with local regulations (Waste Electrical and Electronic Equipment).
- Discard used batteries according to local environmental regulations.
- Contact your local distributor for information regarding disposal of the unit and accessories.

If your device does not seem to be operating correctly, refer to the chart below to determine what may be wrong. If none of these measures correct the problem, please contact A.M.G. Medical Customer Service at: **1-800-363-2381**, between 8:30 AM and 5 PM EST.

Trouble	Possible Cause / Solution
Nebulizer does not work	1) Reassemble the nebulizer correctly. Refer to the Preparing the Device section on page 8 and 9 of this manual. 2) The nebulizer (nozzle / metal mesh) may be blocked. Clean nebulizer (nozzle / metal mesh). Refer to section - Cleaning and Disinfecting. Replace the medication cup (nozzle / metal mesh) if necessary.

TROUBLESHOOTING

Trouble	Possible Cause / Solution
Low nebulization	1) Tilt the device towards yourself to immerse the nebulizing head side with medication in order to make full use of it. 2) The nebulizer (nozzle / metal mesh) may be blocked. Clean nebulizer (nozzle / metal mesh). Refer to section - Cleaning and Disinfecting. Replace the medication cup (nozzle / metal mesh) if necessary.
What medication is suitable for nebulization	1) Only use medications as prescribed and instructed by your healthcare professional. 2) If high-viscosity medication is used, nebulization may be reduced.

These symbols may appear on your device, instructions or packaging.

 Read this manual / Consult Instructions before use	 Separate collection for electrical and electronic equipment	 General imperative
 Upward	 Do not disassemble	 Keep device dry
 Be careful of electric shock	 Power key	 The application part of Type BF
 Caution / Consult accompanying documents before use		

Electromagnetic Compatibility Guidance and Manufactures Declaration – Electromagnetic Emissions

This device is intended for use in the electromagnetic environment specified below. The user of this device should assure that is used in such an environment.

Emission Test	Compliance	Electromagnetic Environment Guidance
RF emissions GB 4824	Group 1	This device 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 - GB 4824	Class B	This device is suitable to 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 GB 17625.1	N/A	
Voltage fluctuations / flicker emissions GB 17625.2	N/A	

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Electrostatic discharge GB/T 17626.2	± 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 GB/T 17626.4	± 2 kV power ± 1 kV input/output	N/A	N/A
Surge GB/T 17626.5	± 1 kV cable to cable ± 2 kV cable to the ground	N/A	N/A
Voltage dips short interruptions and voltage variations on power cable GB/T 17626.11	<5%UT continuous 0.5 cycle (>95% shortly dips on UT) 40% UT, continuous 5 cycle (60% shortly dips on UT) 70% UT, continuous 25 cycle (30% shortly dips on UT) <5%UT, continuous 5s (>95% shortly dips on UT)	N/A	N/A

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Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Power frequency magnetic field GB/T 17626.8	3 A/m 50 Hz 60 Hz	3 A/m 50 Hz 60 Hz	Power frequency magnetic field should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Conducted RF GB/T 17626.6	3V rms 15 KHz to 80 MHz	3 V/m	Portable and mobile RF equipment should not be used close to any part of this portable mesh nebulizer less than recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended Separation Distance: d = 1.2√P 150 kHz ~ 80 MHz d = 1.2√P 80 MHz ~ 800 MHz d = 2.3√P 800 MHz ~ 8.5 GHz
Radiated RF GB/T 17626.3	3V/m 80 MHz to 2.5 GHz	3 V/m	
Where p is the maximum output power rating of the transmitter in watts (W) d – is the minimum separation distance in (m). The field strength of the fixed RF transmitter is determined by an electromagnetic site survey* of the electromagnetic field. Each frequency range b should be lower than the current frequency.** Interference may occur win the vicinity of equipment marked with the following symbol: ((⚡))			

NOTE:

- At 80 MHz and 800 MHz, the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

* 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 this device is used exceeds the applicable RF compliance level above, this device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating this device. ** Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

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

Maximum output power rate of transmitters (w)	Separation distance according to frequency of transmitter		
	150 kHz ~ 80 MHz $d = 1.2\sqrt{P}$	80 MHz ~ 800 MHz $d = 1.2\sqrt{P}$	800 kHz ~ 2.5 GHz $d = 2.3\sqrt{P}$
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	13

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters(m) can be estimated using the equation applicable to the frequency of the transmitter. where p is the maximum output power rating of the transmitter in watts(w) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

A.M.G. Medical Inc. warrants the device to be free from defects in material and workmanship for a period of one (1) year, to be proven by means of the sales receipt or invoice. This warranty is valid for the original purchaser only. Any alterations, abuse, misuse or accidental damage voids this warranty. Repairs under warranty do not extend the warranty period. For service under warranty, call us at: 1-800-363-2381, between 8:30 AM and 5 PM EST.

The following is excluded under the warranty:

- A) All damage which has arisen due to improper treatment.
For example, nonobservance of the user instructions.
- B) All damage which is due to repairs or tampering by the customer or unauthorized third parties.
- C) Damage which has arisen during transport from the manufacturer to the consumer or during transport to the service centre.
- D) Accessories which are subject to normal wear and tear.
Liability for direct or indirect consequential losses caused by the unit are excluded even if the damage to the unit is accepted as a warranty claim.

TECHNICAL SPECIFICATIONS

Power Supply	DC 2.4V Built in lithium battery
Power Consumption	< 4.0 W
Nebulization Rate	> 0.35 ml / minute
MMAD	1~5 μ m
Working Frequency	120 kHz $\pm$ 10 kHz
Medication Liquid Temperature	$\leq$ 45°C
Medication Cup Capacity	10 ml
Product Size/Weight	40mm (L) x 40mm (w) x 91mm (H) / 110g
Security Level	Internal power supply B type equipment
Operation Environment	Temperature: 5°C ~ 40°C Relative Humidity: $\leq$ 80% R.H. Non-condensing state Atmospheric pressure: (86.0 ~ 106.0)kPa
Storage / Delivery Environment	Temperature: -20°C ~ 55°C Relative Humidity: $\leq$ 80% R.H. Non-condensing state Atmospheric pressure: (70.0 ~ 106.0)kPa
Battery Life	The remaining capacity keeps more than 80% of the initial capacity after 3,000 cycles of use.

NOTES

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Questions? Comments?
1-800-363-2381 • www.amgmedical.com

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