



Green Lion Mini Nebulizer

SKU: GNMININEBWH

Model No: GL-MN15

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Thank you for choosing our mini nebulizer. To ensure safe and effective use, please read this manual carefully. After reading, please keep it in a safe place for future reference.

Safety Warnings

1. This product should be purchased and used under the guidance of a physician. Always follow the medical advice regarding the type, dosage, and method of medication administration.
2. If you experience any discomfort while using the nebulizer, stop use immediately and consult a doctor.
3. Use only water-soluble medications or medications diluted with saline, as prescribed by your doctor.
4. Do not use oily medications with this nebulizer.
5. This device is not intended for use in respiratory anesthesia systems or ventilator systems (life support).
6. Do not modify the device without authorization from the manufacturer.
7. Do not use health products or medicinal liquids that contain essential oils in the nebulizer.
8. Always follow your doctor's instructions regarding the correct type, dosage, and usage of medication.
9. If the nebulizer is being used for children or individuals with special needs, make sure it is done under proper supervision and guidance.
10. This device is designed solely for atomization purposes. It should not be used for any other application.
11. Ensure all parts that come into contact with medication are thoroughly cleaned and disinfected before use or storage.
12. If any components are damaged or accidentally submerged in water, discontinue use immediately and do not attempt to operate the device.

Product Overview

Scope of Application: For atomizing medication for therapeutic use.

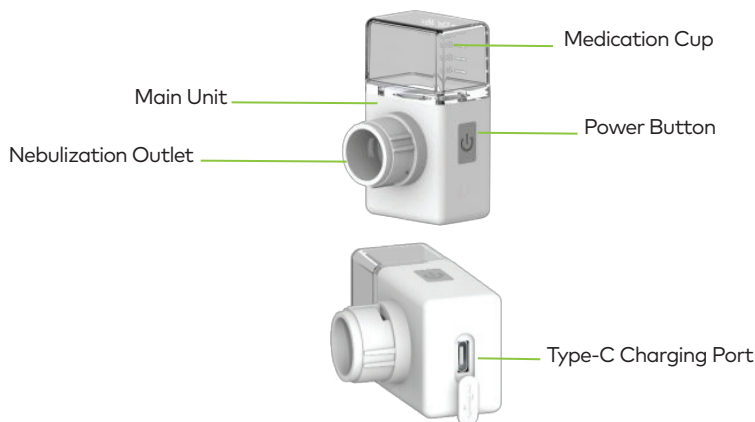
Applicable Population: Suitable for adults and children.

This nebulizer operates by using the rapid oscillation of the circuit, which causes the piezoelectric ceramic transducer to resonate. This drives the micro mesh to vibrate, allowing the medication to pass through the small holes and form aerosol particles. These particles are directed into the patient's respiratory system through the face mask or mouthpiece for inhalation therapy.

The aerosolized medication is absorbed through the mucous membranes and tissues of the oral cavity, throat, trachea, bronchi, and alveoli, ensuring the intended therapeutic effect is achieved.

Product Components

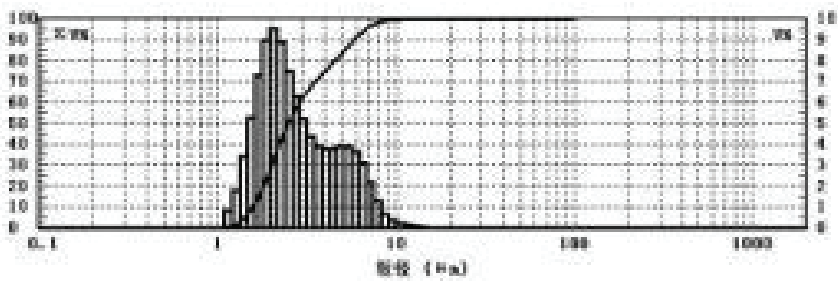
The nebulizer consists of the following components: main unit, medication cup, mouthpiece, adult mask, child mask, USB cable, and manual.



Performance Technical Parameters

| | |
|---|------------|
| Working Frequency | 120KHz±%10 |
| Nebulization Rate | ≥0.3ml/min |
| Temperature of the Nebulized Medication | ≤45°C |
| Working Noise | ≤22 dB |
| Particle Media Diameter | 3μm |

The mass median particle size of the nebulizer was measured at a temperature of 25°C and a humidity of 46 %, using a 0.9 %sodium chloride solution as the test solution. The particle size distribution curve, measured under these conditions, is shown below.



Installation Instructions

1. Remove all packaging and set it aside. Take out the main unit and accessories.
2. Attach the assembled medication cup to the main unit. You should hear a distinct "click" sound when it is properly installed (refer to the medication cup installation diagram).
3. Install the accessories as shown in the medication cup installation diagram.



Invert the medication cup to add the medication, then insert the cup opening into the main unit and rotate to tighten securely.

4. Power Supply Preparation: This product does not come with a power adapter. Please use an adapter from a reputable manufacturer that meets the requirements of GB9706.1-2020 or IEC 60601-1. The technical specifications of the power adapter should meet output voltage of DC 5.0V, 1A.

Note: This device uses a rechargeable lithium battery, which is non-replaceable and has a lifespan of 5 years.

5. Connect one end of the USB data cable to the USB charging port and the other end to a USB power source to charge the lithium battery. Once the battery reaches the operating voltage, the device can function normally.

Note: Before charging, ensure that the connected socket has power. Do not charge the device simultaneously with other electronic devices.

6. Battery Charging: When the battery is low, use the power adapter (DC 5.0V, 1A) to charge the lithium battery. The charging time is approximately 40 minutes. During charging, if the battery is not fully charged, the blue light will blink. Once fully charged, the blue light will remain solid.

Note: The lithium battery is pre-installed; do not attempt to disassemble or replace it yourself. The device cannot be used while charging.

Additional Notes

1. Before using the device for the first time, ensure it is charged for at least 30 minutes.
2. If the nebulization rate significantly decreases or stops, promptly recharge the device.
3. A fully charged lithium battery provides up to 60 minutes of continuous operation.
4. If the device is not in use for more than one month, recharge the battery at least once a month during storage.
5. When removing the device from storage at temperatures around 20°C (whether from a higher or lower storage temperature), allow it to rest for 5 minutes before use.

Warning:

1. Dispose of used batteries in accordance with local environmental regulations. Do not dispose of them with household waste to avoid environmental contamination.
2. Never attempt to disassemble or repair the device or its components. Do not attempt to replace the battery yourself.

Indicator Light Guide

| | |
|-----------------------------------|---|
| Green light solid | The device is currently in operation. |
| Green light flashing for 10s | The device will automatically shut off after a 10-minute timer. |
| Green light flashing continuously | The device's voltage is below 3.2V, and charging is needed. |
| Blue light flashing | The device is currently charging. |
| Blue light solid | The device is fully charged. |

Instructions for Use

1. Press the power button once to turn on the device and begin nebulization.
2. Before starting, gently shake the device horizontally to ensure the medication is fully in contact with the mesh.
3. Inhale the medication slowly and deeply for optimal absorption.
4. Once nebulization is complete, press the power button again to turn off the device. Dispose of any remaining medication from the cup. Do not reuse leftover liquid.
5. Rinse the medication cup, lid, and accessories with tap water, and disinfect them according to the recommended guidelines.

Notes:

1. Ensure the medication remains in full contact with the mesh during the nebulization process. A gentle shake is sufficient, but avoid tilting the device backward while in use.
2. Always follow your doctor's prescribed treatment instructions, and maintain a calm and relaxed posture during the session for effective results.
3. Over time, medication may accumulate around the mesh, which could affect nebulization performance. If this occurs, stop the device, remove the accessories, and gently wipe off the residue with sterile gauze. Avoid touching the center spray area of the mesh to prevent potential damage.

Cleaning and Disinfection

To maintain optimal performance and hygiene, it is essential to clean and disinfect the medication cup assembly (including the spray interface and medication cup lid) and all accessories after each use. Following the guidelines set by GB/T 27949-2020 and WS/T 367-2012, the recommended cleaning and disinfection procedures are outlined below:

1. Product Cleaning

1.1 Before cleaning, ensure the device is turned off and disconnected from any power source.

1.2 Disassemble the Components: Carefully detach the medication cup assembly (including the spray interface and medication cup lid) and accessories from the main unit. Soak them in clean tap water at a temperature not exceeding 40°C for about 5 minutes to remove residual medication.

1.3 Dry the Parts: After cleaning, use clean, sterile medical gauze to remove excess water. Allow all parts to air dry completely.

1.4 Clean the Main Unit: Wipe the outer surface of the main unit. If there is any medication residue on the electrode contacts, use clean, sterile medical gauze dampened with water (and wrung out) to gently clean the area. Afterward, allow the main unit to air dry thoroughly.

1.5 Storage: Store the device and its components in a clean, dry place to avoid contamination.

Note:

a. Do not wash the main unit directly to avoid water entering the device.

b. Ensure the main unit and components are completely dry by using clean, sterile medical gauze before storing them.

c. The inhalation mask and mouthpiece are intended for use by a single individual only to prevent cross-contamination.

d. Always discard any remaining medication after use. Failing to do so may lead to clogging of the nebulizer mesh, affecting its performance.

2. Product Disinfection

To maintain a high level of hygiene and safety, the medication cup assembly (including the spray interface and medication cup lid) and accessories must be disinfected after every use. The following disinfection methods are recommended:

2.1 Chemical Disinfection (Recommended for Medical Institutions): Soak the medication cup assembly (including the spray interface and medication cup lid) and accessories in a 0.1 %Benzalkonium Bromide (New Cleanser) solution or %3 hydrogen peroxide for 10 minutes for effective disinfection. Alternatively, you can wipe the components with the disinfectant.

2.2 After disinfection, rinse thoroughly with tap water and dry using clean, sterile medical gauze, or allow the parts to air dry.

Note: Follow the instructions for Benzalkonium Bromide and hydrogen peroxide. Do not soak the components for extended periods. Avoid using strong oxidizers like perchlorates or disinfectants that may damage metals, polymers, or plastics.

2.3 Ethanol Disinfection: Soak the medication cup assembly (including the spray interface and medication cup lid) and accessories in 75 %medical ethanol for 5–10 minutes for disinfection. Alternatively, disinfect by wiping the components with ethanol.

2.4 After disinfection, rinse thoroughly with tap water and dry using clean, sterile medical gauze, or allow the parts to air dry.

Note:

a. Any disinfectant residue on the components must be wiped off using sterile medical gauze before storing them to ensure safe use.

b. When rinsing or wiping the spray interface, avoid touching the central spray area of the mesh to prevent damage and preserve the nebulizer's functionality.

Maintenance and Storage

1. Storage of the Nebulizer

1.1 The nebulizer should be stored in an environment with a temperature range of 10°C to 40°C.

1.2 The relative humidity should be \leq %80 R.H, with no condensation present.

1.3 The ideal air pressure range for storage is between 86.0 kPa and 106.0 kPa.

1.4 Ensure the nebulizer is stored away from direct sunlight and in a well-ventilated area.

1.5 Store the device in a location free from corrosive gases and away from heating devices or open flames.

1.6 After each use, clean and disinfect the nebulizer promptly.

1.7 Once the device and its accessories are completely dry, store them together in the original packaging box.

1.8 Always ensure the storage area meets the recommended environmental conditions and avoid subjecting the nebulizer to any impacts or rough handling.

2. Maintenance of the Nebulizer

2.1 Always use the nebulizer under normal conditions, as outlined in this manual.

2.2 Never operate the nebulizer near heating devices or open flames. Additionally, do not dry the device or its accessories using microwave ovens, conventional ovens, or hair dryers.

2.3 Keep the nebulizer and its accessories away from corrosive liquids or gases that may cause damage.

2.4 Avoid wrapping the power cord around the main unit to prevent unnecessary wear or damage.

2.5 If you experience any abnormal conditions during use, please refer to Chapter 8 for troubleshooting steps. If the issue persists, contact the manufacturer or the dealer from whom you purchased the device.

2.6 If the nebulizer is not in use for an extended period, it is recommended to charge the device once every three months to maintain the battery's health.

Usage Prohibitions and Precautions

Warning:

a. This product is not allowed to be used with Pentamidine medication.

b. It is prohibited for use in patients with pulmonary edema.

c. Do not use the device during acute asthma attacks or episodes of acute pulmonary embolism.

1. This nebulizer is a medical device suitable for both adults and children. Please follow the instructions in the manual strictly or use it under a doctor's supervision. Children and individuals requiring special care must use it under guardian supervision.

2. In case of malfunction, refer to the "Troubleshooting" section. Do not attempt to repair the device yourself. Contact an authorized service center for assistance.

3. Always clean and disinfect the nebulizer before each use. Refer to the "Cleaning and Disinfection" section for proper guidelines.
4. Do not carry or store the device with medication inside the cup.
5. Before each use, clean and disinfect the inhalation mask or mouthpiece. These items must not be shared to avoid cross-infection. Refer to the "Cleaning and Disinfection" section for instructions.
6. Do not use the nebulizer while bathing or showering.
7. Do not use the nebulizer in environments with flammable gases or near oxygen/anesthesia gas mixtures.
8. The device is intended for use in environments with controlled electromagnetic interference. Keep it away from potential sources of interference.
9. Do not operate the device in high-temperature environments, as this may cause malfunction or fire.
10. Do not expose the main unit or other components to strong vibrations or impacts (e.g., dropping or hitting).
11. Do not use medications containing esters, oils, or suspended particles (including herbal extracts). Only use standard nebulization solutions as prescribed to prevent mesh damage.
12. During cleaning, do not submerge the device in water or rinse it directly under a tap, especially near the USB port. Do not point running water directly at buttons.
13. Do not dry or disinfect any accessories in a microwave oven, as this may cause damage.
14. When using a mask, gently cover the nose and mouth. Do not press the mask firmly against the face. Children must not use the nebulizer unsupervised.
15. Do not touch the mesh area with fingers or sharp objects, as this may damage the mesh or stop mist production.
16. The nebulizer has an IP22 rating for dust and moisture protection. Do not store the product in damp, dusty, or sunny environments. Keep it free from insects.
17. Avoid dropping or forcefully striking the main unit or medication cup, as it may cause damage and render the product unusable.

18. At the end of its service life, dispose of the device and accessories as medical waste. Follow local regulations for proper disposal. Illegal disposal may cause environmental pollution. Users may thoroughly disinfect the medical device before disposing of it as general waste to reduce environmental impact. Inexperienced individuals must contact their local authorities for proper disposal of components that may pose biological hazards.

19. Do not allow children to play with the USB power cable. Avoid charging near the bedside to prevent potential strangulation accidents.

20. The mouthpiece is a small part. Keep it away from children to prevent accidental swallowing.

Troubleshooting

Problem 1: Device does not turn on

Possible Cause 1: The power button is stuck or damaged.

Solution 1: Please contact an authorized service center for assistance.

Possible Cause 2: The battery power is low.

Solution 2: Recharge the battery and restart the device.

Possible Cause 3: The battery is damaged.

Solution 3: Have a professional replace the battery.

Possible Cause 4: The PCBA (Printed Circuit Board) is damaged.

Solution 4: Please contact an authorized service center for assistance.

Problem 2: Cannot charge

Possible Cause 1: The USB cable is not connected properly or is faulty.

Solution 1: Ensure that the USB cable is properly connected to both the nebulizer and the power adapter.

Possible Cause 2: The micro USB port is damaged.

Solution 2: Contact an authorized service center for repairs.

Possible Cause 3: The battery is damaged.

Solution 3: Please contact an authorized service center for assistance.

Problem 3: No medication is emitted

Possible Cause 1: The holding position is incorrect, and the medication is not in contact with the mesh.

Solution 1: Ensure that you are using the correct holding position for the nebulizer.

Possible Cause 2: The medication cup is not properly installed.

Solution 2: Reinstall the medication cup and all components properly to ensure proper functioning.

Possible Cause 3: The medication type is not suitable for use with the nebulizer.

Solution 3: Make sure the medication is sufficient and suitable for use with the device. Consult your doctor for appropriate medication recommendations.

Possible Cause 4: There are excessive bubbles in the medication.

Solution 4: Adjust the angle of the nebulizer and gently shake it to allow the misting process to begin.

Possible Cause 5: The mesh is damaged.

Solution 5: Inspect the mesh for wear or cracks. If damage is found, contact an authorized service center for repair or replacement.

Possible Cause 6: There is poor contact or breakage in the mesh sensor probe, contact points, or wires.

Solution 6: Check for wear or cracks in the mesh and the sensor probe. Contact an authorized service center if necessary.

Possible Cause 7: There is leakage leading to internal corrosion of the device.

Solution 7: Inspect the device for any signs of leakage or internal corrosion. If damage is found, contact an authorized service center for assistance.

Problem 4: Low Mist Output

Possible Cause 1: Insufficient battery power.

Solution 1: Charge the battery.

Possible Cause 2: Medication is not in full contact with the mesh.

Solution 2: Adjust the nebulizer angle so the medication is in full contact with the mesh.

Possible Cause 3: Insufficient medication.

Solution 3: Add more medication.

Possible Cause 4: Medication is unsuitable for nebulization.

Solution 4: Verify if the medication is suitable for nebulization. Consult your doctor if needed.

Possible Cause 5: Mesh holes are clogged.

Solution 5: Clean the mesh, remove any clogs, and restart the device.

Possible Cause 6: Mesh is worn out.

Solution 6: Contact an authorized service center for further assistance.

Problem 5: Medication Cup Leaks

Possible Cause 1: Medication cup latch is damaged.

Solution 1: Replace the medication cup.

Possible Cause 2: Medication cup lid sealing ring is missing or damaged.

Solution 2: Contact an authorized service center.

Possible Cause 3: Medication cup has cracks.

Solution 3: Contact an authorized service center for replacement.

Problem 6: Residual Medication in the Device

Possible Cause 1: Nebulization stops, and the device automatically shuts off.

Solution 1: This is normal. Clean out the residual medication after nebulization.

Problem 7: Liquid Accumulation

Possible Cause 1: Due to temperature differences, mist particles condense at the spray interface.


Solution 1: Remove the accessories, pour out, or wipe off the accumulated liquid.



Statement

The device is designed to be used in the electromagnetic environment specified below. The purchaser or user must ensure that the device is used in compliance with this electromagnetic environment.

Note: UT refers to the alternating current (AC) mains voltage measured before applying the test level

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| Immunity Test: Electrostatic Discharge GB/T 17626.2 IEC 60601 Test Level: The test requires $\pm 6\text{kV}$ contact discharge and $\pm 8\text{kV}$ air discharge. Compliance Level: The device complies with $\pm 6\text{kV}$ contact discharge and $\pm 8\text{kV}$ air discharge. Electromagnetic Environment Guidance: The floor should be made of wood, concrete, or tile. If the floor is covered with synthetic materials, the relative humidity should be at least 30%. |
| Immunity Test: Electrical Fast Transient Pulse Group GB/T 17626.4 IEC 60601 Test Level: The test requires $\pm 2\text{kV}$ for the power supply line and $\pm 1\text{kV}$ for the input/output line. Compliance Level: This test is not applicable to the device. Electromagnetic Environment Guidance: The device should be used with a non-grid power supply. |
| Immunity Test: Surge GB/T 17626.5 IEC 60601 Test Level: The test requires $\pm 1\text{kV}$ for differential mode voltage and $\pm 2\text{kV}$ for common mode voltage. Compliance Level: This test is not applicable to the device. Electromagnetic Environment Guidance: The device should be used with a non-grid power supply. |
| Immunity Test: Voltage Dips, Short Interruptions, and Changes on the Power Input Line GB/T 17626.11 IEC 60601 Test Level: The device can handle less than 5% UT for 0.5 seconds ($>95\%$ dip in UT), 40% UT for 5 cycles (60% dip in UT), and 70% UT for 25 cycles (30% dip in UT). The device can also withstand $<5\%$ UT for 5 seconds ($>95\%$ dip in UT). Compliance Level: This test is not applicable to the device. Electromagnetic Environment Guidance: The device should be used with a non-grid power supply. |
| Immunity Test: Power Frequency Magnetic Field (50 Hz / 60Hz) GB/T 17626.8 IEC 60601 Test Level: The test level requires 3 A/m. Compliance Level: The device complies with 3 A/m. Electromagnetic Environment Guidance: The power frequency magnetic field should match the typical characteristics found in a commercial or hospital environment. |
| Immunity Test: Conducted RF GB/T 17626.6 IEC 60601 Test Level: 3V (effective value) 150kHz ~ 80MHz Compliance Level: 3V/m Electromagnetic Environment - Guidance: Portable and mobile RF communication equipment should not be used closer to any part of the device, including cables, than the recommended isolation distance. This distance is calculated using the formula corresponding to the transmitter frequency. Recommended Separation Distance: $d = 1.2 \sqrt{P}$ (for 150kHz ~ 80MHz) $d = 1.2 \sqrt{P}$ (for 80MHz ~ 800MHz) $d = 2.3 \sqrt{P}$ (for 800MHz ~ 2.5GHz) Note: P refers to the maximum rated output power of the transmitter as provided by the transmitter manufacturer, in watts (W). The field strength of a stationary RF transmitter is determined by surveying the electromagnetic field, which should be lower than the conformance level in each frequency range. Interference may occur near equipment marked with the following symbols:  |

Immunity Test: Radio Frequency Radiation GB/T 17626.3

IEC 60601 Test Level: 3V/m 80MHz ~ 2.5GHz

Compliance Level: 3V/m

Electromagnetic Environment - Guidance:

The field strength of a stationary RF transmitter is determined by surveying the electromagnetic field, which should be lower than the conformance level in each frequency range.

Note:

Interference may occur near equipment marked with the following symbols:

Note 1: At 80MHz and 800MHz, the higher frequency range applies.

Note 2: These guidelines may not be appropriate for all situations. Electromagnetic propagation is affected by absorption and reflection by buildings, objects, and the human body.

A: The field strength of fixed transmitters, such as base stations for wireless (cellular/cordless) telephones, terrestrial mobile radios, amateur radios, AM and FM radio broadcasts, and television broadcasts, cannot be accurately predicted in theory. To assess the electromagnetic environment of fixed RF transmitters, an electromagnetic field survey should be conducted. If the field strength of the device exceeds the applicable RF compliance level specified above, the device should be monitored to ensure it is operating normally. If abnormal performance is detected, additional actions may be required, such as reorienting or repositioning the device.

B: Throughout the entire frequency range of 150kHz ~ 80MHz, the field strength should be kept below 3V/m.

Specifications

| | |
|--------------------|---------------|
| Model No. | GL-MN15 |
| Material | ABS + PC |
| Battery | 250mAh |
| Power | 1W |
| Medicine Capacity | 0.04 ml-10 ml |
| Nebulization Rate | ≥0.3ml/min |
| Particle Size | 3m± 25 % |
| Vibration | 120KHz±10 % |
| Noise Level | ≤22 dB |
| Waterproof | IP22 |
| Charging Port | USB-C |
| Charging Time | 1 Hr |
| Working Time | 60 min |
| Product Weight | 39 g |
| Product Dimensions | 41*35*63 mm |

Disposal

This product must not be disposed of as unsorted household waste. It is important to separate such waste for proper treatment and recycling, in compliance with local waste management regulations.

Warranty

Products that you buy directly from our **Green Lion** website or shop come with a 24-month warranty.

When you buy **Green Lion** products from any of our approved sellers, you only get a 12-month warranty. If you want to extend this warranty, go to our website at <https://www.greenlion.net/warranty> and fill out the form with your information. Don't forget to upload a picture of the product too. After we've checked and accepted your request, we'll send you an email to confirm that your product's warranty has been extended.

For more info, please check:
<https://www.greenlion.net/warranty>

Contact Us

If you have any questions about this Privacy Policy, please contact us at:

Website: <https://www.greenlion.net/>

Sales: sales@greenlion.net

Service Support: Support@greenlion.net

Telegram: [@greenlion_global](https://t.me/greenlion_global)

Instagram: [@greenlion_global](https://www.instagram.com/greenlion_global)