

JOHN BUNN®
by graham-field

Neb-u-Lite® EV2



Nebulizer Compressor Item JB0112-090 User Manual

Read this manual before operating the nebulizer.

Save this manual for future reference.

⚠ Federal Law (USA) restricts this device to sale by or on the order of a physician. This device should not be used unless the operator has been instructed by a qualified healthcare professional.

MPS
MEDICAL PARTS SOURCE

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INTRODUCTION

This user manual contains important information and safety precautions for the John Bunn Neb-u-Lite EV2 Nebulizer Compressor.

Before using your Nebulizer Compressor, please read and understand this entire user manual. Take special note of all safety precautions marked DANGER and WARNING. Save this user manual for future reference.

Intended Use

The Neb-u-Lite EV2 Nebulizer Compressor System is designed to provide a source of compressed air for aerosol therapy. It is used in conjunction with a jet (pneumatic) nebulizer to produce medicated aerosols for inhalation by patients with respiratory symptoms.

Indications for therapy include asthma, chronic bronchitis, infection of the upper respiratory tract, chronic obstructive pulmonary disease, and other respiratory disorders in accordance with a physician's prescription. Do not use this product for any other purpose than the preceding. This device can be used with pediatric or adult patients under physician's prescription.

⚠ WARNING: This product contains small parts that may present a choking hazard to small children, and the tubing may present a strangulation hazard. Always use close supervision when this device is used by or near children or those who require close supervision.

⚠ WARNING: Children under the age of 3, or any patient who is unable to use a mouthpiece properly under supervision, should use a mask.

IMPORTANT SAFETY PRECAUTIONS

When using electrical products, especially when children are present, always follow basic safety precautions, including the following:

- ⚠ DANGER:** Indicates a potential hazard situation or unsafe practice that, if not avoided, will result in death or serious personal injury.
- ⚠ WARNING:** Indicates a potential hazard situation or unsafe practice that, if not avoided, could result in death or serious personal injury.
- ⚠ CAUTION:** Indicates a potential hazard or unsafe practice that, if not avoided, could result in minor or moderate personal injury.
- ▲ NOTICE:** Indicates a potential hazard or unsafe practice that, if not avoided, could result in product or property damage.

Info: Provides application recommendations or other useful information to ensure that you get the most from your product.

READ ALL INSTRUCTIONS BEFORE USING

- ⚠ DANGER:** To reduce the risk of electrocution:
 - 1. Always unplug this product immediately after use.**
 - 2. Do not use this product while bathing, showering, washing dishes, or close to water sources of any kind.**
 - 3. Do not place or store device where it can fall or be pulled into a tub or sink.**
 - 4. Do not place device in or drop into water or other liquid.**
 - 5. Do not reach for a device that has fallen into water. Unplug it immediately.**

⚠ WARNING: To reduce the risk of burns, electrocution, fire or personal injury:

- 1. Never leave this device unattended when plugged in.**
- 2. This product contains small parts that may present a choking hazard to small children, and the tubing may present a strangulation hazard. *Always use close supervision when this device is used by or near children or those who require close supervision.***
- 3. Children under the age of 3, or any patient who is unable to use a mouthpiece properly under supervision, should use a mask.**
- 4. Use this device only as intended and described in this manual. Do not use attachments or accessories not recommended by GF Health Products, Inc.**
- 5. Never operate this product if:**
 - a. it has a damaged cord or plug,**
 - b. it is not working properly,**
 - c. it has been dropped or damaged, or**
 - d. it has been dropped into water.**

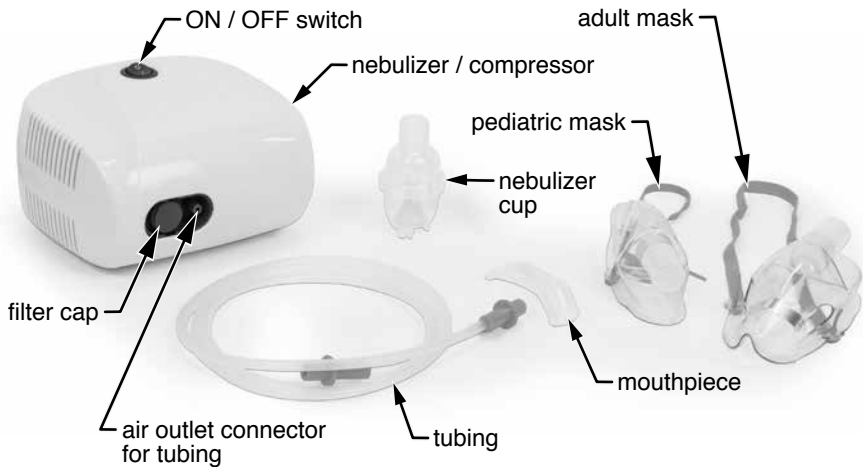
Return the product to your Graham-Field authorized distributor for examination and repair.
- 6. Keep the cord away from heated surfaces.**
- 7. Never block the air openings of this product or place it on a soft surface, such as a bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair and the like.**
- 8. Never drop or insert any object into any openings or hose.**
- 9. Never use this device while drowsy or sleeping.**
- 10. Do not use this device outdoors or operate where aerosol (spray) products are being used.**

- 11. Do not use this device in the presence of flammable anesthesia or where oxygen or nitrous oxide is being administered. This device has no AP or APG protection.**
- 12. Connect this device to a properly grounded outlet only.**
- 13. This device has a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit into a polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not modify the plug in any way. Do not attempt to defeat this safety feature.**
- 14. Unplug the device before filling or cleaning the nebulizer.**
- 15. This device is oil-free. Do not lubricate.**
- 16. Do not remove the jet nebulizer while the device is operating.**
- 17. Do not leave medication inside the jet nebulizer when it is not in use.**
- 18. Use the nebulizer intermittently; the maximum operating period is 30 minutes. The nebulizer must stand unused for 30 minutes before use.**
- 19. The mouthpiece and masks are for use by one person only; in order to avoid infection, do not share them.**
- 20. WARNING: Cancer and Reproductive Harm - www.p65warnings.ca.gov**

PRODUCT DESCRIPTION

Features and Components

Please note nebulizer features and components, labeled in the illustration below.



JB0112-090 Neb-u-Lite EV2 Nebulizer Compressor

Info: Neb-u-Lite EV2 replacement parts are available at www.grahamfield.com or from your Graham-Field authorized distributor.

SETUP

Info: Before initial operation, clean the nebulizer cup assembly following the instructions given in MAINTENANCE/Cleaning the Nebulizer Cup.

⚠ WARNING: Ensure that the nebulizer compressor is unplugged during setup.

1. Before each use, inspect the compressor and nebulizer cup assembly for damage or wear; replace as needed.
2. Place the compressor on a table or other flat stable surface (not on the floor), in an area that is clean and dust-free. Be sure you can easily reach the controls when seated.
3. Open the nebulizer medication cup: Twist the cap counter-clockwise until it stops, then lift cap off.
4. Pour the prescribed medication into the nebulizer medication cup. Do not fill with more than 8 ml per treatment.

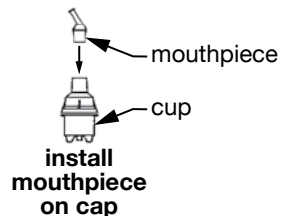
5. Install cap on cup. Turn clockwise to tighten.



6. If using the mouthpiece for treatment, proceed to step 7. If using a mask, install the bottom part of the mask directly onto the top of the nebulizer medication cup cap as shown at right. Proceed to step 8.



7. Install mouthpiece onto top of nebulizer medication cup cap.



8. Connect the tubing to the adapter on the bottom of the nebulizer medication cup.
9. Connect the tubing's other end to the compressor air outlet connector.

⚠ WARNING: Before use, check that all parts are securely connected. Use of an improperly assembled nebulizer could diminish or prevent adequate delivery of medication and the effectiveness of the treatment.

OPERATION

Nebulizer Operation

▲ NOTICE: The Neb-u-Lite EV2 Nebulizer Compressor is designed for intermittent use only. Do not operate it continuously for more than 30 minutes for a single use without turning it off and allowing a cooling period of at least 30 minutes.

1. Ensure that the ON/OFF switch is in the OFF position.
2. Plug the power cord into a properly grounded electrical wall outlet.
3. Move the ON/OFF switch to the ON position to start the compressor.
4. Place the nebulizer mouthpiece between teeth and close mouth (or install the mask on face).
5. As aerosol starts flowing, inhale deeply and slowly through mouthpiece (or mask).

⚠ WARNING: Never use a nebulizer with a clogged nozzle. If the nozzle is clogged, the aerosol mist will be reduced, altered or stopped, which will diminish or eliminate the effectiveness of the treatment. If clogging occurs, replace the nebulizer.

Info: If you need to interrupt treatment, move the ON/OFF switch to the OFF position.

6. When the treatment is complete, move the ON/OFF switch to the OFF position to turn off the compressor.
7. Unplug the compressor from power outlet.
8. Disconnect nebulizer from tubing.
9. Clean nebulizer as instructed in *MAINTENANCE/Cleaning the Nebulizer Cup*.

Safety Overload

▲ **NOTICE: Do not exceed 30 minutes of continuous operation.**

1. The motor of this device has a built-in thermal overload protector. Should the motor overheat, the protector will automatically shut off the motor. Should this occur, move the ON/OFF switch to the OFF position and allow the motor to cool down for approximately 30 minutes before turning it on again.
2. If the overload protector shuts off the motor frequently, you may have an unstable voltage situation.
3. If the device shuts down and cannot restart, it may need to be replaced. Call your Graham-Field authorized distributor immediately.

MAINTENANCE

Cleaning the Compressor's Outer Case

- ⚠ WARNING: Electrical shock hazard. Do not remove the outer case of the device. All disassembly and maintenance of the device must be performed by a qualified service technician. Refer service to qualified service personnel.**
- ⚠ WARNING: This device does not require oil. Do not attempt to lubricate any internal parts.**
- ⚠ WARNING: Unplug device before cleaning. Do not submerge in water for cleaning.**

Wipe the compressor's outer case with a clean, damp cloth weekly to keep it dust-free. Do not use any powdered cleaners or soap.

Cleaning the Nebulizer Cup

All parts of the disposable nebulizer, except tubing, should be thoroughly cleaned after each use. If your physician specifies a specific cleaning procedure, follow that procedure.

- ⚠ WARNING: To prevent possible risk of infection from contaminated medication, clean the nebulizer after each treatment.**
1. After each use, disassemble the nebulizer cup and mask or mouthpiece completely, wash all parts in warm soapy water, and rinse thoroughly. Allow to air dry. Store in a clean, dry location.
 2. Once daily, after washing as above, soak nebulizer components in a fresh solution consisting of one part warm water and one part white vinegar for 30 minutes followed by a warm water rinse. Allow to air dry. Store in a clean, dry location.

Replacing the Filter

▲ **NOTICE:** Change the filter once every 30 days or when the filter changes color.

Info: Additional filters can be purchased at www.grahamfield.com or from your Graham-Field authorized distributor.



1. Ensure that ON/OFF switch is in the OFF position. Open the filter cap located next to the air outlet connector.
2. Remove the dirty filter with a small, pointed object. Discard the filter.
3. Replace with a clean filter.
4. Replace the filter cap.

▲ **NOTICE:** Do not use cotton or other materials as a filter.

▲ **NOTICE:** Do not wash or clean the filter.

▲ **NOTICE:** Do not reuse the filter. Do not operate compressor without a filter. Compressor damage can result.

⚠ **WARNING:** The disposable nebulizer kit is for single patient use only.

Storage

Keep the device and accessories dry. Avoid exposure to direct sunlight.

TROUBLESHOOTING

If your Nebulizer Compressor fails to function, consult the following Troubleshooting guide. If the problem persists, consult your Graham-Field authorized distributor.

Problem	Cause and Solution
Device doesn't operate	Check if plug is properly fit into a grounded electrical outlet.
	When device has been run continuously for more than 30 minutes, auto-shut-down may have been activated by the built-in thermal protector; ensure device is OFF for at least 30 minutes before next usage.
Nebulization is weak	Check for proper electrical voltage.
	Check tubing for blockage or air leakage at connection to compressor or nebulizer cup; replace as needed.
	Check that the nebulizer cup is properly assembled and not damaged. If there is any damage, replace as needed.
	Check if filter is dirty; replace filter as needed.

SPECIFICATIONS

Specification	Description	
Nebulization method	Piston driven	
Maximum outlet pressure	30 psi	
Flow rate	0-8 LPM	
Particle dimension	<5 microns	
Capacity (nebulizer)	8 ml	
Dimensions (W x D x H)	5.8" x 5.5" x 3.3" (146 mm x 38 mm x 83 mm)	
Weight	2.7 lb (1.2 kg)	
Electrical requirement	120VAC/60Hz	
Current	1.1A (rate)	
Fuse	250V, 2.5A	
Power cord	White, 4 ft (122 cm) , 2 prong type polarized	
Operation mode	Intermittent use (30 min. ON / 30 min. OFF)	
Sound level	<63 dBA	
Environment	Temperature	Operation: 50°F to 104°F (10°C to 40°C)
		Storage: -13°F to 158°F (-25°C to 70°C)
	Humidity	Operation: 10% to 95% RH non-condensing
		Storage: 10% to 95% RH

LIMITED WARRANTY

SCOPE OF WARRANTY

GF Health Products, Inc. (“GF”) warrants to the original purchaser only that it will replace or repair components, at GF’s sole discretion, that are defective in material or workmanship under normal use and service. All warranties are conditioned upon the proper use of the products strictly in accordance with good commercial practice and applicable GF instructions and manuals, including proper use and maintenance. To the extent that a component is warranted by a third party, GF conveys all of its rights under that warranty to the original purchaser, to the extent permitted. This limited warranty shall only apply to defects that are reported to GF’s customer service team within the applicable warranty period and which, upon examination by GF or its authorized representative, prove to be a warranty item. This limited warranty is not transferable.

The warranted components and time period are set forth below:

- Compressor five years
- Accessories six months

The applicable warranty period shall commence from date of shipment to the original customer, unless there is an expiration date on the component in which case the warranty shall expire on the earlier of warranty period or the expiration date.

OBTAINING WARRANTY SERVICE

This limited warranty shall only apply to defects that are reported to the Distributor from whom the Customer purchased the product within the applicable warranty period. If there is not a Distributor, you must contact GF directly by calling 1.770.368.4700, sending a fax request to 1.770.368.2386, or by e-mailing a request to cs@grahamfield.com. Specific directions will be provided by the Customer Service Representative. Failure to abide by the specific directions will result in denial of the warranty claim.

EXCLUSIONS

The warranty does not cover and GF shall not be liable for the following:

- 1) Defects, damage, or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, tampering or failure to seek and obtain repair or replacement in a timely manner;
- 2) Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;
- 3) Products considered to be of a non-durable nature including, but not limited to: casters, filters, fuses, gaskets, lubricants, and charts;
- 4) Accessories or parts not provided by GF;
- 5) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing, in advance, by GF;
- 6) Any labor or shipping charges incurred in the replacement part installation or repair;
- 7) Costs and expenses of regular maintenance and cleaning; and
- 8) Representations and warranties made by any person or entity other than GF.

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The warranties contained herein contain all the representations and warranties with respect to the subject matter of this document, and supersede all prior negotiations, agreements and understandings with respect thereto. The recipient of this document hereby acknowledges and represents that it has not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this document.

For additional information on this product or this warranty, please contact a GF Customer Service Representative.

NOTES:

- 1) Additional terms and conditions may apply.
- 2) Freight claims must be notated on the appropriate shipping documents and must be made with immediacy. International, federal and state regulations govern specific requirements for freight claims. Failure to abide by those regulations may result in a denial of the freight claim. GF will assist you in filing the freight claim.
- 3) Claims for any short shipment must be made within three (3) days of the invoice date.



1.770.368.4700

Information contained herein is subject to change.
The most current and complete product information can be found on our website.
www.grahamfield.com

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