



## Introduction

Thank you for purchasing a NH60 Compressor Nebulizer. With proper care and use, your nebulizer will provide you with many years of reliable treatments. This unit operates on standard AC power. Treatments are delivered quickly, safely and conveniently making this unit ideal for all ages in homecare. We encourage you to thoroughly read this guidebook to learn about the features of your nebulizer. Your compressor nebulizer should be used under the supervision of a licensed physician and/or a respiratory therapist. Together with your physician and/or respiratory therapist, you can feel comfortable and confident knowing that you are obtaining the most effective inhalation treatments for your respiratory condition.

**NOTE:** Your nebulizer is intended for use only in the treatment of asthma, COPD and other respiratory ailments in which an aerosolized medication is required during therapy. Please consult with your physician and/or pharmacist to determine if your prescription medication is approved for use with this nebulizer. For type, dose, and regime of medication follow the instructions of your doctor or respiratory therapist.

This device fulfills the provision of the EC directive 93/42/EEC (Medical Device Directive) and the European Standard EN 13544-1:2007+A1:2009 Respiratory therapy equipment - Part 1: Nebulizing systems and their components.

Please read this manual carefully before use and be sure to keep this manual.

### Cautions

Please use general safety precautions when operating your nebulizer. This unit should be used only for its intended purpose as described in this guidebook and with medications only under the supervision and instruction of your physician. Do not use the device in anesthetic or ventilator breathing circuits.

### Product cautions

READ THE FOLLOWING BEFORE USING

To avoid electrical shock, keep unit away from water.

- Do not immerse the unit in liquid.
- Do not use while bathing.
- Do not reach for a unit that has fallen into water immediately unplug the unit.
- Do not use the unit if it has any damaged parts (including plug), if it has been submerged in water or dropped. Promptly send the unit for examination and repair.
- The unit should not be used where flammable gas, oxygen or aerosol spray products are being used.
- Keep the air vents open. Do not place the unit on a soft surface where the openings can be blocked.
- If the medication cup is empty, do not attempt to operate the unit.
- If any abnormality occurs, discontinue to use until the unit has been examined and repaired.
- The unit should not be left unattended while plugged in.
- Do not tilt or shake the unit when in operation.
- Disconnect the unit from the electrical outlet before cleaning, filling and after each use.
- Do not use attachments unless recommended by the manufacturer.
- Do not plug or unplug the AC adaptor into the electrical outlet with wet hands.
- Unplug the AC adapter from the electrical outlet after using the device.

- Do not disassemble or attempt to repair the unit.
  - Do not use the device in anesthetic or ventilator breathing circuits.
  - Do not use the tubing and/or AC adaptor/power cord for any other purpose than the specific uses as they can cause risk of strangulation.
  - Do not service or maintain device while in use.
- Operating cautions**
- Close adult supervision is highly recommended when the unit is used by children or invalids.
  - Keep your eyes away from the output of medication mist.
  - The maximum capacity of the medication cup is 5 ml and should not be over-filled.
  - Do not use this unit while operating a vehicle.
  - If any discomfort or abnormality occurs, stop using the unit immediately.
  - Pentamidine is not an approved medication for use with this device.

### Storage cautions

- Do not store the unit in direct sunlight, high temperature or humidity.
  - Keep the unit out of reach of small children.
  - Always keep the unit unplugged while not in use
- Cleaning cautions**
- Check air filter, nebulizer, mouthpiece and any other optional component before each use. Dirty or worn parts should be replaced.
  - Do not immerse the unit in water. It may damage the unit.
  - Disconnect the unit from the electrical outlet before cleaning.
  - Clean all necessary parts after each use as instructed in this guidebook.
  - Always dispose of any remaining medication in the medication cup after each use. Use fresh medication each time you use the device.

**MEDICAL DISCLAIMER:** This manual and product are not meant to be a substitute for advice provided by your doctor or other medical professionals.

Don't use the information contained herein or this product for diagnosing or treating a health problem or prescribing any medication. If you have or suspect that you have a medical problem, promptly consult your doctor.
Durable medication 2es as follows, provided the product is used to nebulize 2ml of medication 2 times a day for 10 minutes each time at room temperature (25°C). Durable period may vary depending on usage environment.

- Main unit 3 years
- Nebulizer Kit 1 year
- Mouthpiece 1 year
- Air Filter 60 days
- Adult and child masks 1 year

### Product specifications

AC Adaptor	DC12V, 1A
Power	AC100–240V, 50–60Hz
Power Consumption	≤ 12 W
Sound Level	≤ 55 dBA (1 meter away from NH60)
Compressor Pressure Range	≥ 16 psi (110 kPa)
Operating Pressure Range	≥ 8 psi (55 kPa)
Operating Flow Range	≥ 2.0 lpm
Operating Temperature Range	10°C to 40°C (50°F to 104°F)
Operating Humidity Range	≤ 90% RH
Operating Atmospheric Pressure Range	700-1060 hPa
Storage Temperature Range	-20°C to 60°C (-4°F to 140°F)
Storage Humidity Range	≤ 90 % RH
Dimension (L x W x H)	66.3mmx67mmx160.5mm (2.6x2.6x6.3 inches)
Weight	308.3g (without accessories)
Medication Capacity	5ml(cc)
Particle Size (MMAD)	≤ 2.6µm
Average Nebulization Rate	Fully open Valve ≥ 0.2ml/min (0.9% Saline Solution) Closed Valve ≥ 0.08ml/min (0.9% Saline Solution)

Standard Accessories	Nebulizer Kit, Mouthpiece, Filters (5PCS), Adult and child masks
* Subject to technical modification without prior notice.	
* Performance may vary with drugs such as suspensions or high viscosity. See drug supplier's data sheet for further details.	

### 1. Product identification

1. Nebulizer Kit	2. Nozzle	3. Angled Mouthpiece
4. Air Filter	5. Child Mask	6. Adult Mask
7. AC Adaptor	8. Air Output	9. Air Filter Slot
10. On/Off Button	11. AC Adaptor Jack	

### B. Valve Adjustable Technology

The proprietary adjustable valve is able to deliver medications of different viscosity level according to every user's conditions and needs at ease. Our VA technology allows users to adjust different levels of nebulization rate ranging ≥0.08 – 0.2 ml/min at consistent particle size.

The nebulization rates can be adjusted by the user in a very easy way without exchanging parts. Higher nebulization ratefully open is for higher viscosity medications and higher breathing capacity user while lower nebulization rate with closed valve will be more appropriate for kids / infants with lower breathing capacity.

### C. Assembling your nebulizer kit

Follow the cleaning instructions in this guidebook under "Cleaning technique" prior to using your nebulizer for the first time or after it has been stored for an extended period of time.

**REMEMBER:** Always unplug the compressor and make sure the On/Off button is turned to the "OFF" position before cleaning, assembling and before or after each use.

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

5. Assemble the nebulizer kit by carefully twisting the medication cup and cover together. Make sure that the two parts fit securely.

**WARNING:** The symbol on this product means that it's an electronic product and following the European directive 2012/19/EU the electronic products have to be disposed on your local recycling centre for the safe treatment.

### D. Operating your nebulizer

The nebulizer kit is operable at up to a 45° angle. If the angle is greater than 45°, no aerosol will be generated.

- Carefully attach the nebulizer kit to the air output on the top of nebulizer device.
- Attach the angled mouthpiece or mask to the nebulizer kit.
- The capacity of the medication cup is 2–5 ml.

### Es Español

**Introducción**
Gracias por comprar el nebulizador de compresor NH60. Con el cuidado y uso adecuado, su nebulizador le proporcionará tratamientos fiables por muchos años. La unidad funciona con corriente alterna estándar. Los tratamientos pueden ser realizados de manera rápida, segura y de manera conveniente haciendo de esta unidad un elemento válido para todas las edades y prácticamente en cualquier entorno tanto doméstico. Recomendamos que le este manual de usuario atentamente para llegar a conocer las características de su nebulizador. Su nebulizador de compresor debería utilizarse bajo la supervisión de un médico y/o terapeuta respiratorio licenciado. Junto con su médico o su terapeuta respiratorio, podrá sentirse confortable y confiante sabiendo que está obteniendo los tratamientos de inhalación más efectivos para su enfermedad respiratoria.

**NOTA:** Su nebulizador se ha concebido para su uso en el tratamiento de asma, EPOC u otras enfermedades respiratorias, en las cuales se requiere una medicación aerosolizada durante la terapia. Por favor consulte a su médico y/o farmacéutico para determinar si su medicación recetada está autorizada para el uso con este nebulizador. Con respecto al tipo, a la dosis y al régimen de la medicación, observe las instrucciones de su médico o terapeuta respiratorio.

**NOTA:** Su nebulizador se ha concebido para su uso en el tratamiento de asma, EPOC u otras enfermedades respiratorias, en las cuales se requiere una medicación aerosolizada durante la terapia. Por favor consulte a su médico y/o farmacéutico para determinar si su medicación recetada está autorizada para el uso con este nebulizador. Con respecto al tipo, a la dosis y al régimen de la medicación, observe las instrucciones de su médico o terapeuta respiratorio.

Este aparato satisface las exigencias de la Directiva 93/42/CEE (Directiva de Productos Sanitarios) de la CE y la Norma Europea EN 13544-1:2007+A1:2009 Equipos de terapia respiratoria - Parte 1: Sistemas de nebulización y sus componentes.

**Precauciones**
Por favor, lea este manual cuidadosamente antes del uso. Por favor, fíjese en cuando este manual.

- Por favor, lea este manual cuidadosamente antes del uso. Por favor, fíjese en cuando este manual.
- No use las precauciones de seguridad generadas al estar operando su nebulizador. Esta unidad sólo deberá usarse para el fin descrito en este manual de usuario y con medicamentos bajo la supervisión e instrucción de su médico. No use este dispositivo en circuitos de anestesia o respiración-.
- Precauciones referentes al producto**
  - Evite el contacto diario usando un soft cloth.
  - NOTE:** Any other form of cleaning or cleaning agents may damage the finish of the unit.

### G. Changing the air filter

It is important to change the air filter approximately when the air filter turns gray. It is recommended to change air filter every 2 months.

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

**NOTE:** Air filters cannot be cleaned or washed. Only NH60 air filters can be used.

- Do not substitute alternate material such as cotton. Do not operate without an air filter.

### Troubleshooting

If any abnormality occurs during use, please check and correct the following:

- Unit does not operate when power switch is pressed: Check the AC connection to the outlet.
- No misting or low rate of misting:
  - Check that there is medication in the nebulizer cup.
  - Check the main unit; if there is any physical damage.
  - Check the position of the nozzle inside the nebulizer.
  - Make sure that air tube and other components are properly attached.
  - Check the air filter and replace if necessary.

### Protection against electric shock:

- Class II equipment.

### Typ eBF applied parts:

- Mouthpiece and mask.

### Protection against harmful ingress of water and particulate matter:

- IP22

### Degree of safety in the presence of flammable anesthetics or oxygen:

- No AP/APG (not suitable for use in the presence of flammable anesthetics or oxygen).

MASK FREQUENCY (%)	Particle Diameter (µm)	COMMITMENT RATE (%)
100.00	0.00	0.00
99.99	0.05	0.00
99.95	0.10	0.00
99.85	0.15	0.00
99.70	0.20	0.00
99.50	0.25	0.00
99.25	0.30	0.00
98.95	0.35	0.00
98.55	0.40	0.00
98.05	0.45	0.00
97.45	0.50	0.00
96.75	0.55	0.00
95.95	0.60	0.00
95.05	0.65	0.00
94.05	0.70	0.00
92.95	0.75	0.00
91.75	0.80	0.00
90.45	0.85	0.00
89.05	0.90	0.00
87.55	0.95	0.00
86.00	1.00	0.00
84.35	1.05	0.00
82.65	1.10	0.00
80.95	1.15	0.00
79.25	1.20	0.00
77.55	1.25	0.00
75.85	1.30	0.00
74.15	1.35	0.00
72.45	1.40	0.00
70.75	1.45	0.00
69.05	1.50	0.00
67.35	1.55	0.00
65.65	1.60	0.00
63.95	1.65	0.00
62.25	1.70	0.00
60.55	1.75	0.00
58.85	1.80	0.00
57.15	1.85	0.00
55.45	1.90	0.00
53.75	1.95	0.00
52.05	2.00	0.00
50.35	2.05	0.00
48.65	2.10	0.00
46.95	2.15	0.00
45.25	2.20	0.00
43.55	2.25	0.00
41.85	2.30	0.00
40.15	2.35	0.00
38.45	2.40	0.00
36.75	2.45	0.00
35.05	2.50	0.00
33.35	2.55	0.00
31.65	2.60	0.00
29.95	2.65	0.00
28.25	2.70	0.00
26.55	2.75	0.00
24.85	2.80	0.00
23.15	2.85	0.00
21.45	2.90	0.00
19.75	2.95	0.00
18.05	3.00	0.00
16.35	3.05	0.00
14.65	3.10	0.00
12.95	3.15	0.00
11.25	3.20	0.00
9.55	3.25	0.00
7.85	3.30	0.00
6.15	3.35	0.00
4.45	3.40	0.00
2.75	3.45	0.00
1.05	3.50	0.00
0.00	3.55	0.00
0.00	3.60	0.00
0.00	3.65	0.00
0.00	3.70	0.00
0.00	3.75	0.00
0.00	3.80	0.00
0.00	3.85	0.00
0.00	3.90	0.00
0.00	3.95	0.00
0.00	4.00	0.00
0.00	4.05	0.00
0.00	4.10	0.00
0.00	4.15	0.00
0.00	4.20	0.00
0.00	4.25	0.00
0.00	4.30	0.00
0.00	4.35	0.00
0.00	4.40	0.00
0.00	4.45	0.00
0.00	4.50	0.00
0.00	4.55	0.00
0.00	4.60	0.00
0.00	4.65	0.00
0.00	4.70	0.00
0.00	4.75	0.00
0.00	4.80	0.00
0.00	4.85	0.00
0.00	4.90	0.00
0.00	4.95	0.00
0.00	5.00	0.00
0.00	5.05	0.00
0.00	5.10	0.00
0.00	5.15	0.00
0.00	5.20	0.00
0.00	5.25	0.00
0.00	5.30	0.00
0.00	5.35	0.00
0.00	5.40	0.00
0.00	5.45	0.00
0.00	5.50	0.00
0.00	5.55	0.00
0.00	5.60	0.00
0.00	5.65	0.00
0.00	5.70	0.00
0.00	5.75	0.00
0.00	5.80	0.00
0.00	5.85	0.00
0.00	5.90	0.00
0.00	5.95	0.00
0.00	6.00	0.00
0.00	6.05	0.00
0.00	6.10	0.00
0.00	6.15	0.00
0.00	6.20	0.00
0.00	6.25	0.00
0.00	6.30	0.00
0.00	6.35	0.00
0.00	6.40	0.00
0.00	6.45	0.00
0.00	6.50	0.00
0.00	6.55	0.00
0.00	6.60	0.00
0.00	6.65	0.00
0.00	6.70	0.00
0.00	6.75	0.00
0.00	6.80	0.00
0.00	6.85	0.00
0.00	6.90	0.00
0.00	6.95	0.00
0.00	7.00	0.00
0.00	7.05	0.00
0.00	7.10	0.00
0.00	7.15	0.00
0.00	7.20	0.00
0.00	7.25	0.00
0.00	7.30	0.00
0.00	7.35	0.00
0.00	7.40	0.00
0.00	7.45	0.00
0.00	7.50	0.00
0.00	7.55	0.00
0.00	7.60	0.00
0.00	7.65	0.00
0.00	7.70	0.00
0.00	7.75	0.00
0.00	7.80	0.00
0.00	7.85	0.00
0.00	7.90	0.00
0.00	7.95	0.00
0.00	8.00	0.00
0.00	8.05	0.00
0.00	8.10	0.00
0.00	8.15	0.00
0.00	8.20	0.00
0.00	8.25	0.00
0.00	8.30	0.00
0.00	8.35	0.00
0.00	8.40	0.00
0.00	8.45	0.00
0.00	8.50	0.00
0.00	8.55	0.00
0.00	8.60	0.00
0.00	8.65	0.00
0.00	8.70	0.00
0.00	8.75	0.00
0.00	8.80	0.00
0.00	8.85	0.00
0.00	8.90	0.00
0.00	8.95	0.00
0.00	9.00	0.00
0.00	9.05	0.00
0.00	9.10	0.00
0.00	9.15	0.00
0.00	9.20	0.00
0.00	9.25	0.00
0.00	9.30	0.00
0.00	9.35	0.00
0.00	9.40	0.00
0.00	9.45	0.00
0.00	9.50	0.00
0.00	9.55	0.00
0.00	9.60	0.00
0.00	9.65	0.00
0.00	9.70	0.00
0.00	9.75	0.00
0.00	9.80	0.00
0.00	9.85	0.00
0.00	9.90	0.00
0.00	9.95	0.00
0.00	10.00	0.00
0.00	10.05	0.00
0.00	10.10	0.00
0.00	10.15	0.00
0.00	10.20	0.00
0.00	10.25	0.00
0.00	10.30	0.00
0.00	10.35	0.00
0.00	10.40	0.00
0.00	10.45	0.00
0.00	10.50	0.00
0.00	10.55	0.00
0.00	10.60	0.00
0.00	10.65	0.00
0.00	10.70	0.00
0.00	10.75	0.00