

EN

INSTRUCTION MANUAL

DIAGNOSTIC[®]

NANO

NEBULIZER

PISTON COMPRESSOR



Diagnosis[®]

Diagnosis S.A.
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www.diagnosis.pl

CE 0197

REF 7015

DEAR CUSTOMER

Thank you for buying the Diagnostic NANO nebulizer intended for inhalation. Inhalation therapy is an efficient and safe method of treatment of respiratory diseases. The treatment should be started after consultation with your doctor. Before the first use of the nebulizer, carefully read the instructions for use.

1. INTRODUCTION

Diagnostic NANO is a compact medical device intended for intermittent use (30 min operation, 30 min break). Enables the medical preparation to immediately and directly reach bronchial tubes and lungs as an inhalant. If proper precautionary measures are taken, the nebulizer will ensure appropriate treatment quality for a number of years.

2. OPERATING DESIGN

The Diagnostic NANO nebulizer was designed for the treatment of asthma, allergies and other respiratory diseases. The device produces a stream of air led through the air tube to the nebulizer. After the introduction of air into the nebulizer, the medical preparation will be atomized, creating an easily-inhaled mist. The main flow of air into and out of the compressor is presented in Figure 1.

We advise you to read this user manual in order to familiarize yourself with the characteristics of the product. The product should not be used for other than the intended purpose.

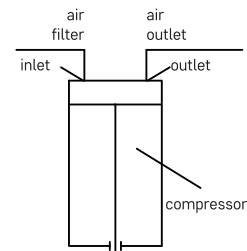


Fig.1

3. PRODUCT FEATURES

Before using the device, make sure that the following elements are included:

- 1 x main unit (compressor)
- 1 x nebulizer (spray nozzle)
- 1x air tube
- 1x mask for adult, mask for children
- 1x mouthpiece
- 5x air filter

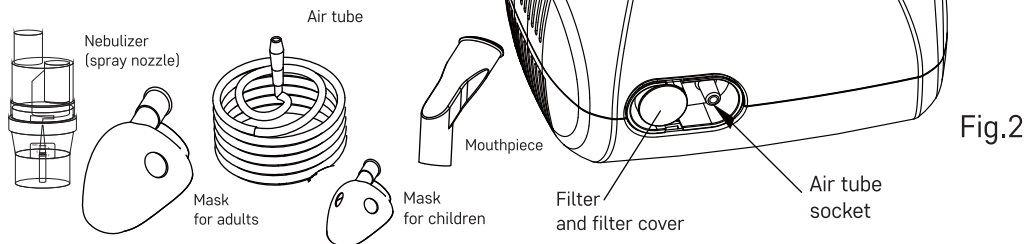
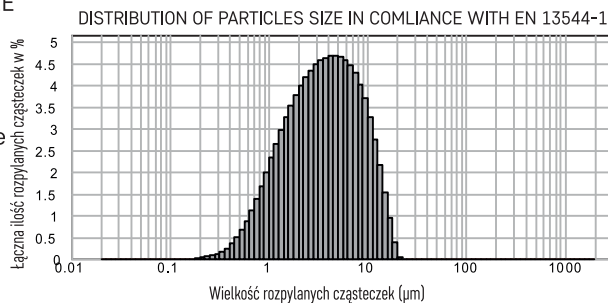


Fig.2

SPECIFICATION OF PARTICLES` SIZE ATOMIZED BY THE NEBULIZER

Data may vary depending on medicine used. Measurements done by using MALVERN technology and physiological salt solution. Data provided may not be applicable to suspended solids or to high viscosity medicine therefore, in case of using medicine different than physiological salt solution please contact the manufacturer of the medicine used for inhalation



AEROSOL THERAPY SYSTEM FOR HOME USE



IMPORTANT WARNINGS: failure to comply with the warnings and the contents of this user manual may expose the user to such risks as: deterioration of health, burns, electric shock, recurrent infections, death, fire, environmental pollution. The use of any electrical appliance requires observance of the following fundamental principles:

BEFORE USING THE APPLIANCE CAREFULLY READ THIS USER MANUAL

Failure to follow the user manual relating to the operation of the device may cause malfunction.

- Follow the electrical specifications stated on the device;
- Concerning the issues related to the medication type, dosage and usage schedule, the advice of a doctor must be followed. The intensity of use of the device must always be consulted with a physician.
- The inhalation of any substances should be carried out with permission of the doctor who decides on doses and usage;
- Lack of electricity supply, sudden failure or other adverse conditions may cause device malfunctions; for that reason, it is recommended to equip oneself with a device or medication (in accordance with the doctor's recommendations) that could be used interchangeably;
- Use the device only for its intended purpose (aerosol inhalation) and in the manner described in this manual;
- Do not allow the device to be used by children or persons with disabilities without supervision;
- In such cases, special care must be taken during therapy;
- Do not use the device if the plug or power cord are damaged.
- Never leave the device, its accessories, or packaging within the reach of children, unauthorized persons, pet animals or insects.
- If necessary, use adapters or extension cords compliant with the applicable safety standards, paying attention not to exceed the limit of current load and reducing the maximum power indicated on the adapter;
- Do not use the device with wet or damp hands, do not use it while showering;
- Never allow the device to be immersed in water or other liquids; do not use the device if it has been accidentally soaked;
- The device and the power cable should be located away from heat sources;
- The device is equipped with liquid ingress protection;
- Do not use the device near flammable objects or explosives;
- Do not use the device in an environment where sprays have recently been used; ventilate the room before starting therapy;
- Do not block or clog vents on the device, do not place it on a soft surface such as a bed or couch;
- Do not insert any objects into the vents;
- Do not use the device if it emits abnormal sounds;
- In order to prevent deterioration of the device's functionality, use only original accessories;
- Accessories should only be used by one person. In the event that the nebulizer is used by other family members, we recommend cleaning them before each use or purchase additional accessories intended for individual use only.

- Do not pull the power cord or the appliance itself in order to remove the plug from the electrical outlet.
- After use, always unplug the power plug.
- Do not expose the device to atmospheric conditions; store it at room temperature.
- Do not put the air tube or the power cord on the neck
- The device contains small parts that may be dangerous if swallowed.
- Do not use the device in combination with accessories other than those described in the user manual.
- Do not use the device if it was stored in a polluted environment.

RESPONSIBILITY

In terms of safety, efficiency and reliability, the responsibility lies with the manufacturer only if:

- assembly, calibration, repairs or modifications are carried out by authorized persons;
- electrical installation complies with the applicable standards;
- the user manual has been complied with. The manufacturer shall not be liable for the improper, incorrect or unreasonable use of the appliance.

FILTER REPLACEMENT

The filter should be replaced every 3 months or every 300 uses. To replace the air filter, follow these steps:

1. Remove the filter cover.
2. Replace the filter.
3. Reinstall the filter cover.

NOTE: If the filter becomes wet, it should be completely dried before use

FUSE

There is a fuse installed inside the device, which must be replaced in the event of a failure. The replacement operation, as well as other possible repairs, should be carried out by the manufacturer or its authorized personnel

ELECTROMAGNETIC COMPATIBILITY

The device complies with current standards regarding electromagnetic compatibility and is suitable for use in all buildings, including residential buildings. The radio frequency emissions level of the device is very low and does not cause interference with devices that are located nearby. However, it is recommended that you do not position it on or near other devices. If interferences with other electrical equipment occur, the device should be moved away or plugged into another electrical outlet. Radio communication equipment may affect the operation of the device. Keep it at a distance of at least 3 m from the device.

4. PREPARING FOR NEBULIZATION

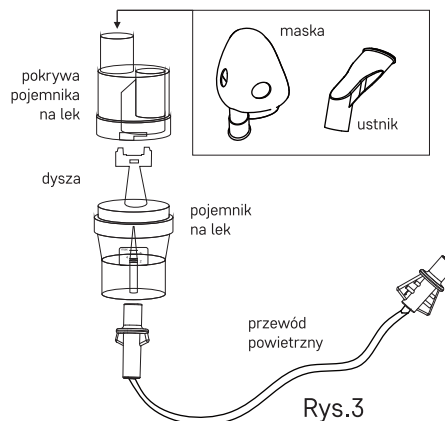
To pour the medication into the nebulizer, perform the following steps:

1. Open the medication cup.
2. Fill the medication cup in accordance with the doctor's recommendations. Make sure that the medication does not exceed the volume of 8 ml.
3. Close the medication cup.
4. Attach the mouthpiece or mask.

NOTE: The mouthpiece is designed for oral inhalation.

NOTE: Remember to use the baffle in the nebulizer (in the medication cup). It is necessary for the atomizer to work properly

BUDOWA NEBULIZATORA (ROZPYLACZA)



5. HOW TO USE THE DEVICE

To start the nebulizer, perform the following steps:

- Connect the plug of the compressor to the mains, but do not connect the nebulizer.
- Make sure that the air filter is clean and located in the device.
- Connect the nebulizer using air tube with the main unit (compressor).
- Turn on the power.
- Start inhalation in accordance with the doctor's recommendations.
- Nebulizer operation time: 30 min operation / 30 min break. After 30 minutes of operation, the device should be turned off in order to prevent compressor overheating.
- Inhalation is completed when there is no more medicament in the cup.
- After the end of the inhalation, turn off the unit before disconnecting the air tube

6. CLEANING

All activities associated with cleaning of the device should be carried out with the plug removed from the electrical outlet. In order to avoid incorrect operation of the device and inhaling undesirable substances, clean the appliance and the accessories immediately after finishing therapy. Cleaning the appliance should be carried out using a cloth slightly moistened with alcohol. After cleaning the equipment, before using it, wait for the alcohol to evaporate completely. Do not use other liquids or cleaning agents. Do not use cloths that are too wet, since the contact of liquids with electrical devices may lead to operational failure, irreversible damage, as well as can be dangerous to your health.

7. CLEANING THE ACCESSORIES

1. Before the first use and after using the device each time, thoroughly clean the accessories (except the power cord) with lukewarm water and dry with a cloth. They should be subsequently placed in a clean place. During cleaning, make sure to have removed any residues of substances intended for inhalation and then thoroughly dry the accessories. In any event, do not use cleaning and disinfecting agents that may be toxic in contact with the skin or mucous membranes, when swallowed or through inhalation. Any moisture remaining in the air tubes should be removed by starting the unit for a few minutes without the nebulizer connected. If the air tube is dirty, it must be replaced. If also the air tube loses its tightness, it should be replaced with the new one.

2. In order for the nebulizer to work properly, after each use do the following:

- After you disconnect the air tube remove the mouthpiece or mask.
- Open the cap of the medication cup and empty it. Wash your nebulizer under running water or leave it in warm water for 15 minutes. To achieve a better cleaning effect, add some vinegar to water (a mixture of 1/3rd white vinegar, 2/3rds water).

NOTE: Do not boil the accessories as this may result in damage.

- Do not put nebulizer accessories into the dishwasher.
- Prior to an extended storage period, the accessories should be completely dried.

8. SPARE ACCESSORIES

To ensure effective inhalation, proper operation and safety, use only original accessories available for purchase. All the accessories are suitable for direct contact with the skin. They do not contain phthalates. In case of doubt, please contact Diagnosis company or your local Distributor.

9. PERIODIC INSPECTIONS

In order to maintain high performance of the appliance, it is recommended for:

- the medication cup to be replaced every 12 months (every 6 months, if the cup is used 3 times a day). A damaged cup should be replaced immediately.
- the adult mask, pediatric mask, mouthpiece, and air tube to be replaced every 2 years.

10. TECHNICAL SPECIFICATION

Power	230V AC, 50Hz
Supply Power	below 65W
Nebulizer flow	6 l
Compressor flow	8-10 l
Pojemność pojemnika na lek	2-8 ml
Particle size	0,5 do 6 microns
MMAD	2,44 microns
Nebulization efficiency	0,4 ml/min
Deposit quantity	0,15 ml
Working time	30 min operation / 30 min break
Noise level	below 55 dBA
Operating conditions	10°C do 40°C (50°F do 104°F) 10% to 95% relative humidity
Storage conditions	-20°C do 70°C (-4°F do 158°F) 10% to 95% relative humidity
Dimensions (L x W x H)	167 x 142 x 93 mm
Device weight	1,51 kg
Accessories	Nebulizer, mask (large), mask (small), 5 x air filter, air tube 150 cm, mouthpiece

NOTE!











Specifications may change without prior notice.

11. PROBLEM SOLVING.

Problem	Probable cause	Solution
Nebulizer does not start	The main switch of the compressor is switched off.	Turn on the device.
Too noisy	No air filter in the device.	Install filter in the unit.
	Nebulizer has not been cleaned after previous use.	Clean the device.
	Air tube is folded.	Remove any bends or knots of the air tube.
	Filter is clogged.	Replace the filter.
	No medication.	Add the appropriate quantity of drug prescribed by the doctor to the medication cup.
Water drops are formed in the air tube.	Too much medication added.	Adjust the amount of the drug in the cup to the proper level, connect the air tube to the compressor and turn on the device.
	Air tube has not been dried.	The remaining moisture in the air tube can be removed by starting the unit for a few minutes without connecting the nebulizer. If the air tube is dirty, it must be replaced.

NOTE: If you experience any other problems with the device, contact Diagnosis or your local Distributor.

12. EXPLANATION OF SYMBOLS USED:

				Rev.	SN							IP21
Important warnings	Prąd zmienny	Fuse	Manufacturer	Date of the last review	Serial number	Catalog Number	Production year	Isolation Class II	Urządzenie Typ BF	Read the user	Protect before moisture	Degree of protection

WARNING! Portable wireless communication equipment may affect MEDICAL ELECTRICAL DEVICES
Working in the vicinity (within a distance of 2.8 m) of a cellular phone may cause instability of the stimulator

WARNING! Specifications required by the abovementioned standard are available at
<http://www.diagnosis.pl/norma-en-60601-1-2.html>



The worn out product should be taken to a waste collection facility. Contains components that are dangerous for the environment. The correct disposal of the device allows to preserve valuable resources and avoid negative effects on health and the environment, which may be threatened by inappropriate handling of waste.

NOTES



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store stamp and signature of salesperson

WARRANTY CARD

WARRANTY CARD

DEVICE NAME MODEL

SERIAL NUMBER DATE OF SALE

WARRANTY TERMS

1. Diagnosis S.A. grants a warranty:

- 2 years for DIAGNOSTIC NANO nebulizer (excluding accessories)
- 12 months for nebulizer accessories

Hardware defects revealed during the warranty period will be rectified free of charge within 21 days.

The term runs from the date of delivery of the equipment to the service center.

2. The purchaser shall be entitled to replace the equipment for a new one, free of defects, when:

- the repair has not been made within the time limit set in item 1
- an authorized service center found an irreparable manufacturing defect
- during the warranty period, 4 repairs were effected, and the equipment still shows defects that prevent its use in accordance with its intended purpose.

The concept of repair shall not include operations related to equipment check and cleaning.

3. The warranty shall not cover: batteries, products with illegible or damaged serial number, damage due to the operation and storage inconsistent with the user manual, ingress of liquids or foreign bodies, overvoltage of mains, repairs by unauthorized persons and random events.

4. Faulty equipment should be delivered by the buyer to the address of the main service center or one of the Authorized Service Centers.

5. The warranty for the sold consumer goods shall not exclude, restrict, or suspend the powers of the buyer resulting from non-conformity of the goods with the contract.

6. The only basis for the warranty rights shall be the warranty card with the date of sale, stamp and signature of the salesperson. If the card is not completed, filled in wrongly, with traces of corrections and entries made by unauthorized persons, illegible as a result of damage - it shall be invalid.