

ENG COMPRESSOR NEBULIZER LD. *Instruction Manual*.POL INHALATOR KOMPRESOROWY LD. *Instrukcja obsługi*.HUN KOMPRESSZOROS INHALÁTOR LD SORAZAT. *Használati útmutató*.ROU APARAT DE AEROSOLI CU COMPRESOR LD. *Manual de instrucțiuni*.BGR КОМПРЕСОРЕН ИНХАЛАТОР LD. *Ръководство за експлоатация*.

fig.1 rys. 1 1. ábra fig.1 рис. 1  
**PARTS AND COMPONENTS** DENUMIREA PARȚILOR SI COMPOENTELOR  
**PODSTAWOWE CZĘŚCI I KOMPONENTY** НАЗВАНИЯ НА ЧАСТИ И КОМПОНЕНТИ  
**ALKATRÉSZEK MEGNEVEZÉSE**

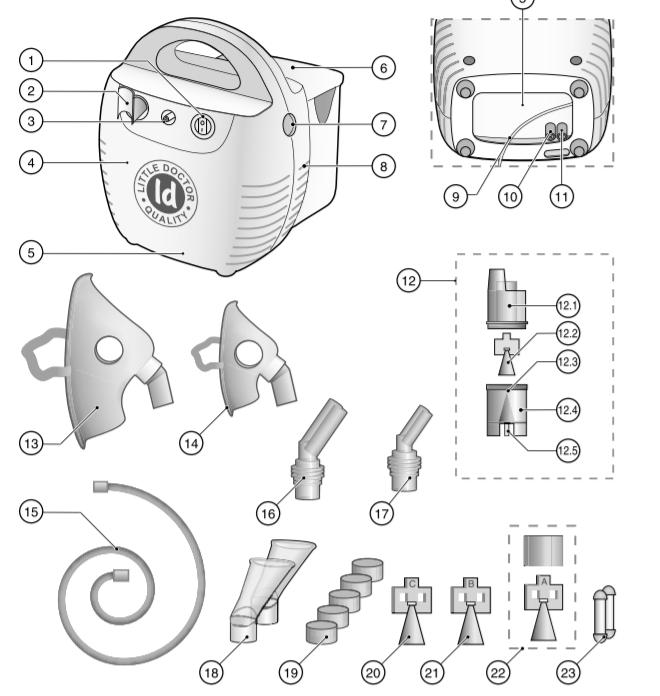
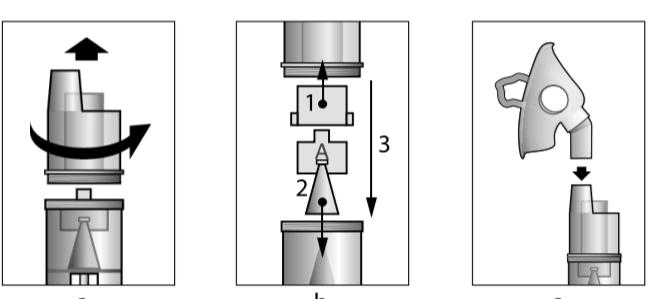


fig.2 rys. 2 2. ábra fig.2 MOD DE UTILIZARE  
**USING THE DEVICE** НАЧИН НА ИЗПОЛЗВАНЕ  
**SPOSÓB UŻYTKOWANIA**



Depending on the type of baffle, the particles of different sizes are distributed aerosols as follows\*.

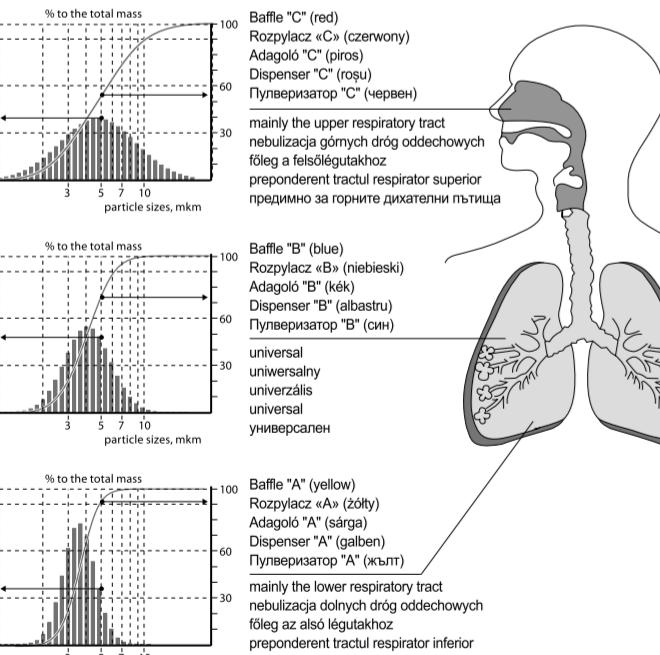
W zależności od rodzaju rozprzyjazca, aerosol o różnej wielkości cząsteczek rozprowadzany jest w następujący sposób\*:

At adagoló típusúval függően, a különböző méretű részecskék aerosolos eloszlása a következő\*:

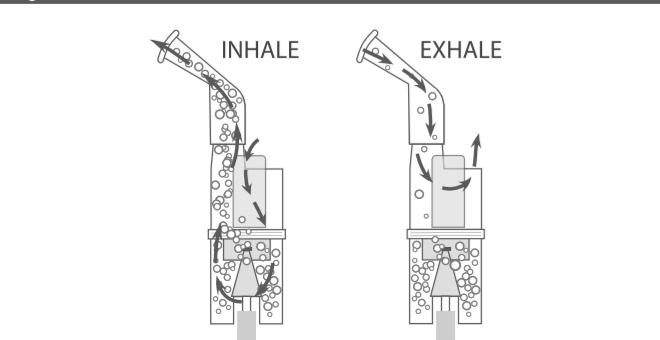
Independently of the tip dispenser utilized, particulele de diverse dimensiuni se distribuie in aerosol in feluri următoare:

În funcție de tipul pulverizatorului utilizat, particulele cu dimensiuni diferite sunt distribuite în aerosol în următoarele feluri:

In зависимост от тип пулверизатора, избран от Вас, частиците с различен размер се разпределят в аерозол по следния начин\*:



Breath-actuated nebulizer. Nebulizer activated wدهم. НЕБУЛАЗИР, АКТИВИРАЩ СЕ С ВДЫШИВАНИЕ. Lélegzet-aktivált inhalátor.



## ENG

## PARTS AND COMPONENTS (fig.1)

- 1 POWER SWITCH.
- 12.3 NOZZLE.
- 2 ANGULAR HOLDER.
- 12.4 BOTTOM OF NEBULIZER.
- 3 CONNECTOR OF COMPRESSOR.
- 12.5 CONNECTOR OF NEBULIZER.
- 4 COMPRESSOR.
- 13 ADULT MASK LD-N041.
- 5 COMPARTMENT FOR POWER CORD.
- 14 CHILD MASK LD-N040.
- 6 PLASTIC BOX.
- 15 INHALATION TUBE LD-N051.
- 7 SOCKET FOR THE FILTER.
- 16 ADULT NASAL NOZZLE LD-N058.
- 8 INTAKE.
- 17 CHILD NASAL NOZZLE LD-N059.
- 9 POWER CORD.
- 18 MOUTHPIECE.
- 10 SLOT WITH SAFETY FUSE.
- 19 FILTER INHALED.
- 11 SLOT WITH SAFETY FUSE.
- 20 BAFFLE «A» (RED) LD-N003.
- 12 NEBULIZER LD-N105.
- 21 BAFFLE «B» (BLUE) LD-N002.
- 12.1 UPPER PART OF NEBULIZER.
- 22 BAFFLE «A» (YELLOW) LD-N001.
- 12.2 BAFFLE «B» (BLUE) LD-N002.
- 23 FUSES 1A 250V.

## NEBULIZER THERAPY – WHAT IS IT?

Nebulizer is a device for formation and spraying of aerosol. The word "nebulizer" is derived from the Latin word "nebulula" (fog, cloud) and was first used in 1874 for a device that turns a liquid substance into an aerosol for medical purposes. One of the first portable "aerosol apparatuses" was created by J. Sales-Girons in Paris in 1859. The first nebulizers were used as steam jet energy sources and were applied for inhalation the vapors of resins and antibiotics by tuberculosis patients. Presently, the term "inhaler" is often used instead of "nebulizer".

The purpose of the nebulizer therapy is to quickly deliver to the respiratory passages a therapeutic dose of a preparation in aerosol form. Continuous supply of aerosol allows, within several minutes, creating high concentration of a medicine in the upper and lower respiratory passages and lungs, with low probability of any by-effects. Respectively, effective bronchodilation (bronchi expansion) is reached, and the need for hospitalization is eliminated or the hospital stay is reduced.

Little Doctor International (S) Pte. Ltd. offers nebulizer LD-211C, whose distinctive features are the possibility to use a wide range of medicines, low inhalation solution residual volume, and reliable and simple use. We thank you for your choice.

## GENERAL INFORMATION

Compressor nebulizer LD is designed for treating the diseases of respiratory passages and lungs by medicine solution aerosols in clinic and at home.

This Instruction Manual is designed to assist the user with safe and effective operation of the Compressor Nebulizer LD.

Use this Device according to the rules described in this Manual. Operate the Device only as intended. Do not use the Device for any other purpose. Read and understand the whole Instruction Manual.

## PERFORMING THE INHALATION

The length of one treatment session should not exceed 20 minutes. Consult your attending physician about the length of the inhalation procedure.

You should always be calm and relaxed during the inhalation. Breathing should be slow and deep, so that the preparation could fill the lungs well and reach the deep portions of bronchi.

Briefly hold your breath, and then exhale slowly. Do not attempt to breathe too rapidly. Make pauses if you feel that you need it.

## SAFETY INFORMATION

To assure the correct use of the product, basic safety measures should always be followed including the warnings and cautions listed in this instruction manual.

## WARNING

For regime of medication shall follow the instructions of your physician or licensed healthcare practitioner. Do not cover the compressor with a blanket, towel, or any other type of cover during using. This could result in the compressor overheating or malfunctioning.

## COMPLETING THE INHALATION

When the inhalation solution is used up and the inhalation time recommended by the doctor has expired, turn the device off by putting the tumbler in «0» position and unplug it. After inhalation, breathe fresh air for some time for better treatment effect. After each application of the device, the residual preparation should be removed off of it. Clean and wash the device as described in last paragraph «SAFETY INFORMATION».

## TECHNICAL SPECIFICATIONS

Model	LD-211C
Type	Compressor Nebulizer
Rating	AC 230V, 50Hz
Power consumption	190VA
Extreme Pressure	210kPa~400kPa
Free Flow Range	>7/lmin
Nebulizing Pressure	60kPa~180kPa
Noise Level	<52dB*
Max capacity of nebulizer kit	10ml
Nebulization rate, approximately	
Inhalation baffle «A» LD-N001	0.3 ml/min*
Inhalation baffle «B» LD-N002	0.4 ml/min*
Inhalation baffle «C» LD-N003	0.5 ml/min*
Particle size (MMAD)	
Inhalation baffle «A» LD-N001	3.5 mkm
Inhalation baffle «B» LD-N002	4.0 mkm*
Inhalation baffle «C» LD-N003	5.0 mkm*

## SYMBOL EXPLANATION:

- CE 020 Compliance with the Directive 93/42/EEC
- Important: Read the instruction
- BT Type product
- Storage/operation temperature, humidity and atmospheric pressure limitation
- SN Serial number

mainly the upper respiratory tract nebulization of gromyckich drogów oddechowych föleg a felső légúthatók preoperant tracul respirator superior preoperant cu gorme dixitentii nyílás

RISK OF ELECTRICAL SHOCK

Do not use the compressor (main unit) and the power cord while they are wet. Do not plug or unplug the power cord into the electrical outlet with wet hands. Do not immerse the compressor (main unit) in water or other liquid.

Do not spill water or other liquids on the compressor. These parts are not waterproof. If liquid spills on these parts, please unplug the power cord and wipe off the liquid with gauze or other soft absorbent material immediately.

Do not use or store the device in humid locations or outdoors. Use the device within the operating temperature and humidity.

Do not overload power outlets. Plug the device into the appropriate voltage outlet.

Do not use extension cords. Plug the power cord directly into the electrical outlet.

Do not damage the power cord. Please never leave this product unattended when plugged in.

Unplug the power cord from the electrical outlet before cleaning the device.

Completely read all of the instructions included the optional accessories before using them.

Not to position the ME EQUIPMENT so that it is difficult to operate the disconnection device.

The power switch is used to isolate the device from the supply mains.

The direction of movement of the actuator of the supply mains switch is comply with IEC 60447.

## MAINTENANCE AND STORAGE

Keep the device out of the reach of unsupervised infants and children. The device may contain small parts that can be swallowed.

Do not leave the cleaning solution in the nebulizer parts. Rinse the nebulizer parts with clean hot tap water after disinfecting.

Wash the nebulizer parts after each use. Dry the parts immediately after washing.

Do not store the air tube with moisture or medication remaining in the air tube. This could result in infection as a result of bacteria.

Store the device and the components in a clean, safe location.

Do not carry or leave the nebulizer with medication in the medication tank.

Do not place or attempt to dry the device, components or any of the nebulizer parts in a microwave oven.

The following are maintenance and repair which can be taken by operator, or which must be operated by manufacturer or distributor.

\* - Measured by Little Doctor International (S) Pte. Ltd.

## SERVICE AND MAINTENANCE

Change the inhalation tube Operator

Change the applied part Operator

Change the air filter Operator

Clean the surface of the device Operator

Daily cleaning and disinfecting Operator

All components which need to be repaired or changed by separating the device Authorized service center of distributor or manufacturer

## WARNING

Do not modify this equipment without authorization of the manufacturer

Do not service or maintenance the device while in use with the patient.

## CARE AND DISPOSAL

Regularly clean the device and all accessories. It is recommended that all the accessories should be wiped with a 3% solution of hydrogen peroxide with addition of 0.5% solution of a detergent (for example, a laundry powder). After that, the nebulizer should be washed by a rich jet of water. The mouthpieces and nose nozzles may be treated by boiling for 10 minutes or autoclaving at 150°C. After the treatment, wipe dry all parts of the device with a soft cloth.

Regularly check the filter for dirt and replace it when needed. FILTER REPLACEMENT IS RECOMMENDED AT LEAST ONCE A YEAR.

Repair the Device only in authorized organizations.

On expiration of the warranted service life apply from time to time to authorized repair organizations to check the technical condition of the Device. Dispose of the Device and its components according to the application local regulations. No special requirements to disposal of this Device are defined by the manufacturer.

## USING THE DEVICE

Preparation for inhalation.

IMPORTANT: Before using the appliance for the first time it is necessary to make a full cleaning, as described in last paragraph «SAFETY INFORMATION».

1. Place the nebulizer in front of you on the table. Make sure the device is turned off (power switch is in position «0»), and the power cord is not plugged into the mains.

2. Remove the top of the nebulizer by turning it counterclockwise (Fig.2.a).

3. Set the desired baffle.

Factory installed baffle inside the nebulizer is baffle «B» (Blue), which is effective to affect the entire respiratory tract.

For a more effective impact medicines on the upper respiratory tract, set, instead of the blue baffle, red baffle «C».

For a more effective impact on the lower respiratory tract - baffle «A» (Yellow) color, which consists of two parts (Fig.2.b, figure indicates the order of assembly). Graphics of the differential particle size distribution by mass for different nozzles are shown in Fig.3. For effective delivery medicines to a specific site of respiratory tract, need to use the appropriate baffle.

3. Fill the bottom of the nebulizer with inhalation solution. The dosage should not exceed the recommended by your doctor. The number of nebulizer solution is determined by the scratches on the case. The maximum reservoir volume of 10 ml.

4. Turn the nebulizer, switching the power switch in position «1». NEBULIZER IS READY FOR INHALATION.

## PERFORMING THE INHALATION

The length of one treatment session should not exceed 20 minutes. Consult your attending physician about the length of the inhalation procedure.

You should always be calm and relaxed during the inhalation. Breathing should be slow and deep, so that the preparation could fill the lungs well and reach the deep portions of bronchi.

Briefly hold your breath, and then exhale slowly. Do not attempt to breathe too rapidly. Make pauses if you feel that you need it.

## INFORMATION OGÓLNA

Inhalator kompresorowy LD przeznaczony jest do leczenia chorób dróg oddechowych oraz płuc przy pomocy aerosoli wytwarzanych z roztworów preparatów leczniczych. Można z niego korzystać zarówno w placówkach medycznych, jak i w domowych warunkach.

Niektóre instrukcje pomogą użytkownikom bezpieczeństwa i efektywnego korzystania z inhalatora kompresorowego LD.

Aparat należy użyczyć zgodnie z zasadami określonymi w niniejszej instrukcji. Nie powinieneś używać tego urządzenia dla celów innych niż, które są w opisie.

Należy używać inhalatora, który jest nowy i nie ma żadnych uszkodzeń.

Wszystkie części inhalatora, z wyjątkiem komory inhalacyjnej, powinny być zmywane w zimnej wodzie.

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