Introduction

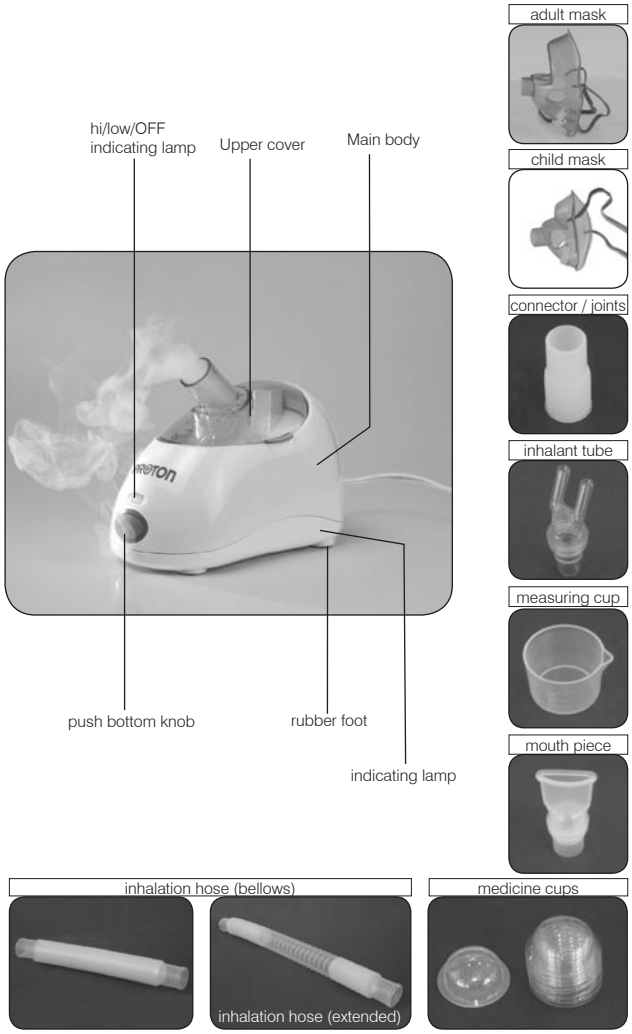
Thank you very much for purchasing this **PROTON Ultrasonic Nebulizer, PHC 101UN** suitable for home and clinical use. This products is a clear example of technological excellence with simplicity resulting from the continuous efforts of innovation through science and technology.

This PROTON model has been selected and rewarded for its excellent scientific and technological results. The product has also received favorable opinions from customers worldwide for its reliable quality and simple, sturdy design.

This unit is a medical instrument. The unit must be used properly and in accordance with instructions given by medical professionals. To be used only with medication as prescribed by your doctor.

Be sure to read this instruction manual carefully, before using the unit. Please keep this instruction manual handy for future reference.

Parts of the Nebulizer



Principles of Nebulization

The nebulizer transmits energy of ultrasonic vibration from the transducer located at the bottom of the water tank into water. This vibration is further transmitted into the medication cup through the water. Hence medication is emitted from the cup as a mist. Air currents from the fan, in turn, carries the nebulised medication in the form of an aerosol for adminitration.

Features of the Nebulizer

1. Finer mist and controlled delivery volume: 5 – 7 ml / min
2. The unit adopts high quality ABS plastic enclosure and strict quality components
3. With separate controls for mist volume adjustment and timer, nebulization can be tailored accurately
4. Easy to use operation and design

Instructions for use

Preparing the unit

Clean all parts before using.

Parts may be submerged in hot boiling water for a few minutes before use.

Preparing the unit

1. Before starting to use the Nebulizer, check and ensure the Power cable is connected properly to the Nebulizer.
2. Remove the plastic lid covering the water trough of the Nebulizer. Pour clean water about 3ml to 5ml in to the trough.
3. Inspect and ensure the Medical Cup has no leakage. Infuse the desired dose of liquid medicine that has been prescribed by your doctor into Medical Cup. Now place the Medical Cup back into trough. Replace the plastic lid cover back into position.
4. Now connect the Nozzle and Bellows, selecting the optional inhalation accessory from Mask, Nose Piece or Mouth Piece. Bellows may be connected using the Joints included to the desired length for added comfort. The initial Bellow will require a Joint piece to connect to the nebulizer.
5. To start nebulization press the blue push button once. The light indicator turns blue indicating 'HI' nebulization with the mist being dispersed. Pressing the blue push button a second time, the light indicator turns yellow indicating 'LOW' nebulization. Pressing the blue push button a third time will 'SWITCH-OFF' the unit.
6. The nebulizer will work continuously in both 'HI' and 'LOW' speed positions till the medication is over in the medical cup. The unit should be manually turned off at this moment.
7. Once nebulization is complete, switch off power

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supply, detach the power cord, remove the Medical Cup and clean as indicated under the 'Care and Maintenance' section of this manual.

Cleaning the unit

Be sure the unit is OFF and the power cord is disconnected before cleaning.

1. Disconnect all accessories and remove the medical cup. For reasons of hygiene this unit is designed with a disposable Medical Cup. It is advised to use the Medical Cup only once.
2. The main unit must be wiped down using a clean damp cloth. A non abrasive cleaner may be used if required.
3. All the parts may be soaked in a mixture of one part vinegar to three parts distilled water for 30 mins. Alternatively a mild commercial disinfectant may be used.
4. All parts must be thoroughly air dried.

   "***NEVER clean the unit or any parts with volatile chemicals such as benzene or thinners".***

Storing the unit

When storing the parts, be aware of infections.

- Do not store the unit in direct sunlight where the temperature and humidity is high as this will promote bacterial growth
- Do not store in a dusty environment

Exemption from liabilities

PROTON will not be liable for the following:

1. Trouble / damage caused by the maintenance or repair by persons other than PROTON's authorized agents.
2. Trouble / damage of a PROTON product caused by the product of another manufacturer.
3. Trouble / damage caused by the maintenance and/ or repair using part(s) not authorized by PROTON.
4. Trouble / damage caused as a result of not observing the notes on safety and care mentioned in this Instruction Manual.
5. Not complying to the operating instructions of the unit mentioned in this Instruction Manual.
6. Trouble / damage caused as a result of improper repair of the product.
7. Trouble / damage caused by nature such as fire, earthquake, flood or lightning.

   "The contents of this Instruction Manual have been prepared with care and attention. However, if you find any omission or error, please inform your local PROTON or dealer. The contents are subject to change for improvement without prior notice".

Notes on safety

WARNING:

- Only use medications as prescribed and instructed by your doctor
- Clean and disinfect the medication cup, medication cup cover, mouthpiece and inhalation hose and parts, each time the unit is used
- Be sure to immediately dry the cleaned and disinfected parts, then store them in a dry place in order to prevent them from getting contaminated in the future
- In case of any problem with your nebulizer please contact your local PROTON service representative (address on / inside package)
- When assembling the cleaned, disinfected and dried parts, do not touch the places where the medication and the nebulized medication pass through directly with your hands to prevent possible infection
- Do not make any contact with the transducer while the power plug is plugged into the electric outlet
- You may suffer electric shock or injure yourself
- Do not use this device in combination with ventilation equipment
- The pressure in the ventilation system may reduce significantly
- Do not plug in or pull the power plug from the electric outlet with wet hands. You may suffer electric shock or injure yourself
- Do not wash the main unit with water or splash water to the power source, do not use the nebulizer while you are in bath or having a shower, Never submerge the nebulizer in water. Short circuit may occur in the unit or you may suffer electric shock

CAUTIONS:

Always clean the unit before use

- If medication remains in the nebulization unit, this may worsen your condition. Wash off the remaining medication in the parts thoroughly with water after cleaning these parts as indicated in the cleaning section of this IM
- Replace the water in the water tank each time you use the unit with fresh water. A dirty transducer may cause lower nebulization rate. Overheating may cause the motor to stop
- Do not look into the nebulization section during nebulization as medication may get into your eyes
- Rinse the unit thoroughly to remove all traces of disinfectant as this may worsen your condition
- Do not operate the unit when the medication cup is empty as the unit may become overheated or damaged

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- Disposal of this product should be carried out carefully in accordance with any regulations for disposal of electrical products

To avoid electrical shock and / or fire:

- If you are not going to use the unit for a long time, be sure to unplug the power plug from the electric outlet
- When you install, remove the device or take care of the parts, be sure to turn off the power and unplug the power plug from the electric outlet
- Do not fill the water tank with any liquid other than water (tap water or distilled water), as the transducer may deteriorate and get damaged
- Do not use the power cord or the power plug if it is damaged or do not plug the power cord into a loose electric outlet
- Do not scratch, tear, modify, forcibly bend, pull, twist or bundle the power cord. Do not place a heavy material on the power cord
- Keep power cord away from heated or hot surfaces
- Do not disassemble, repair or modify the unit. The unit may malfunction or cause injury. Contact your nearest PROTON service representative
- Do not use a power cord other than the one supplied with this unit of supplied by a PROTON agent
- Be sure to use the power source as specified on the device
- Do not share the electric outlet with other electric appliances
- To unplug the power plug from the electric outlet, do not pull the power cord, pull the plug with your hand

GENERAL ADVICE

- Do not use the PROTON Ultrasonic Nebulizer for the purpose other than for inhalation
- Do not use any parts other than the accessories included
- Do not fill the medication cup with more than 80ml or less than 5ml of medication as the unit may not nebulise
- Do not move the unit while medication remains in the unit
- Do not block the air ventilation holes on the side of the nebulizer. Place the unit on a flat and stable surface during operation
- Do not apply strong shocks to or drop the unit
- Do not bend the inhalation hose too much so as to interrupt the flow of medication
- Do not inhale from the inhalation hose if the main unit is higher than your head. This is dangerous
- Be careful not to damage the transducer when cleaning the water tank of the main unit
- Do not disinfect the unit by boiling in a microwave oven
- After cleaning and disinfecting the parts, assemble them after they are completely air dried
- Do not wipe the main unit with volatile chemicals, such as benzene or thinners
- Do not use this device in the direct vicinity of other electrical devices as this may affect its function
- Do not allow children or disabled persons to use the unit without appropriate supervision

Faults and troubleshooting

Indicating lamp not lighting up	1. External power supply is in poor contact or no electricity 2. Timer is in 'OFF' position or damaged	Inspect external power supply and timer
Mist volume is decreased obviously	1. Medication over 2. Mist volume control on low	Use sufficient medicine and regulate mist volume control

Specifications

Input voltage	AC 230V (50Hz)
Power consumption	16W±10% - Hi, 13W±10%-Low
Reservoir volume	5cc max. drug (without medication cup) 5~6cc water (with medication cup)
Medical cup volume	5cc Max.
Nebulization Rate	0.50cc/Min - Hi, 0.25cc/Min - Low
Transducer frequency	2.5MHz±10%
Residual volume	1.1cc±0.5cc
Dimension	160x100x124mm
Net weight	325g

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