

180.00 mm

125.00 mm

6.

**Recommended separation distances between
portable and mobile RF communications equipment and the NEBULIZER
MODELNM211E**

The NEBULIZER MODEL NM211E is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the NEBULIZER MODELNM211E can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the NEBULIZER MODELNM211E as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2.5 GHz $d = 2,3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.



FOSHAN GAUNING ELECTRONICS CO.,LTD
2nd Floor, Building 5, No. 1, Hua Bao South Road, Chan Cheng District,
TEL: 0757-83107610 FAX: 0757-83107621



Importer : Dyn Diagnostics LTD.

Address : Ha`eshel street 7 Ceasarea

Call Center : 1800-333-636

Mesh Nebulizer

File No.GYQR-4-5-7/16

Operation Manual

Model: NM211E



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1, Getting acquainted

Dear valued customer,

Thank you for choosing one of our products.

Please read these instructions for use carefully and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

With kind regards

Area of application

This nebulizer is a mesh nebulizer for treating the upper and lower respiratory tract. The nebulization and inhalation of medication prescribed or recommended by a doctor can prevent against diseases of the respiratory tract, treat the side effects of these disorders and accelerate healing.

2, Signs and symbols

The following symbols appear in these instructions.



Warning

Warning instruction indicating risk of injury or damage to health.



Important

Safety note indicating possible damage to the device/accessory.



Note

Note on important information.

For more information on possible applications, consult your doctor or pharmacist. The device is suitable for inhalation at home or on the move. Medicines should only be inhaled when instructed by a doctor.

Inhalation should be performed in a calm and relaxed atmosphere.

Inhale slowly and deeply to enable the medicine to reach the small bronchi deep into the lungs. Exhale normally.

The following symbols are used on the packaging and on the nameplate of the device and accessories.

	Type BF applied part
	Follow instructions for use
	Manufacturer
	On/Off
SN	Serial number
	Device in protection class 2
	Do not use outdoors
IP 22	Protected against foreign objects equal to or greater than 12.5 mm in diameter and against drops of water falling at up to 15° from vertical

3, Safety information and warnings



Warning

Before use, ensure that there is no visible damage to the device or accessories. When in doubt, do not use the device and contact your dealer or the customer service address provided.

Using the device is not a substitute for consultation with or treatment from a physician. Whenever you have any pain or illness, always contact your physician first.

If you have health concerns of any kind, contact your general practitioner!

When using the nebulizer, always follow the basic hygiene procedures.

Always follow your doctor's instructions regarding the type of medicine to be used and the dose, frequency, and duration of inhalation.

Only use medicines that have been prescribed or recommended by your doctor or pharmacist.

If the device does not function correctly or if you begin to feel unwell or feel pain, stop using the device immediately.

During use, hold the device away from the eyes, as some nebulised medicines may cause damage to the eyes.

Do not operate the device in the presence of flammable gases.

Do not use the device near electromagnetic transmitters.

This device is not intended to be used by children or persons with restricted physical, sensory (e.g. insensitivity to pain) or mental abilities or persons lacking in the required experience or knowledge for safe operation of the device, unless supervised or instructed by a person responsible for their safety.

Keep children away from packaging materials (risk of suffocation).

Do not use attachments that are not recommended by the manufacturer.

Do not dip the device into water and do not use it in wet rooms. Do not allow any liquid to penetrate the device.

Protect the device from strong impacts.

Do not use the device if it has fallen or been dropped on the floor, been exposed to extreme humidity or is otherwise damaged. In case of doubt, contact our customer service department or your local dealer.

The NM211E must only be operated along with the appropriate Gaunying accessories. The use of other accessories can impair therapeutic efficiency and may damage the device.

Remove the batteries from the device if you will not be using it for an extended period. Leaking batteries may damage the device.



Important

Power cuts, sudden faults or other unfavourable conditions may render the device unusable. You are therefore recommended to keep a spare device or replacement medicine (as agreed with the doctor).

The device must be stored away from sources of heat.

Do not use the device in a room in which a spray has previously been used. If this is the case, ventilate the room before commencing treatment.

For reasons of hygiene, each user should use their own set of accessories (mesh nebulizer, mask and mouthpiece).

Store the device in a location protected against environmental influences. The device must be stored in the specified ambient conditions.

Do not use any liquids that have a viscosity (thickness) greater than 3, as these may damage the mesh irreparably.

Do not use any medicines in powder form (even if dissolved).

Do not shake the nebulizer, as this may cause liquid to leak, thereby damaging the device.

General notes



Important

- Use the device only On humans

For its intended purpose (aerosol inhalation) and in the manner described in these instructions for use.

- Any improper use can be dangerous!
- In acute emergencies, first aid takes priority.
- In addition to medicines, use only a saline solution.
- This device is not intended for commercial or clinical use, but only for individual, private household use!

Before using the device for the first time



Important

Before you use the device for the first time, remove all packaging materials.

Protect the device from dust, dirt and moisture.

Do not use the device in very dusty environments.

Before use, ensure the device and accessories are at room temperature.

Switch the device off immediately if it is defective or malfunctioning.

The manufacturer shall not be held liable for damage or injuries caused by improper or incorrect use.

Notes on handling batteries

Keep batteries out of the reach of children. Children can put batteries in their mouths and swallow them. This can cause severe harm to their health. In this case, consult a

physician immediately!

Normal batteries must not be recharged, heated or thrown into open flame (risk of explosion).

Leaking batteries may damage the device. If you do not intend to use the device for prolonged periods, remove the batteries from the battery compartment.



Caution

Leaking or damaged batteries can cause burns upon contact with the skin. When removing such batteries, wear suitable protective gloves.



Repairs Note

Never open or attempt to repair the device yourself, as otherwise proper function is no longer guaranteed. Failure to observe this regulation shall void the warranty.

If you need to have the device repaired, contact customer service or an authorized dealer.

4, Important information on the device

Accessories

The safe functioning of the device can only be guaranteed if the accessories recommended by the manufacturer are used.



Caution

Protecting against leaks

When filling the medicine container with medicine, ensure that you do not exceed the maximum mark (10 ml). The recommended filling amount is between 2 and 10 ml.

During use, you can tilt the device up to a maximum angle of 45°C in any direction, without impairing its nebulising function or success of the treatment. However, spraying only takes place if the substance to be sprayed is in contact with the mesh. If it is not, spraying stops automatically.

If this happens, please try to hold the device as upright as possible.

Automatic switch-off

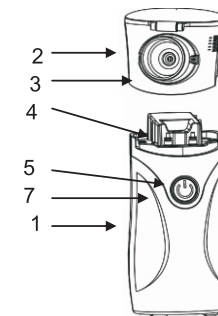
The device has an automatic switch-off function. To prevent damage to the mesh, the device switches off automatically when the medicine/liquid has been almost entirely used up.

Do not use the device if the medicine container or water tank is empty. The device switches off automatically if the substance to be sprayed is no longer in contact with the mesh.

5 , Description of device and accessories

Overview of nebuliser

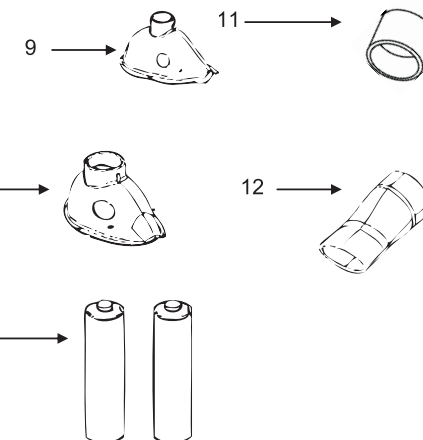
- 1 Nebulizermain unit
- 2 Medicine tank
- 3 Mesh transducer module
- 4 Electrode contact
- 5 Power On/ Off button
- 6 Battery cover



- 7 Led indicator for displaying the operating status

Overview of accessories

- 9 Mask for adult(Applied parts)
- 10 Mask for kid (Applied parts)
- 11 Mask connector
- 12 Mouthpiece(Applied parts)
- 13 Alkaline AA battery X 2



6, Initial use

Before using the device for the first time



Note: Before using the device , the nebulizer and accessories should be cleaned and disinfected. For more information, see section 8

6.1 Assembling transducer module to nebulizer main unit:

Remove the device from the packaging.

Connect the mesh transducer module with medicine tank to the nebulizer main

unit. Make sure to connect firmly so that you hear a “click” sound. Refer to Fig. 1.

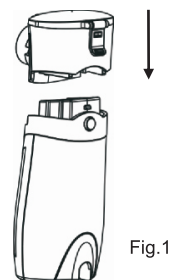


Fig.1

Note:

To remove transducer module with medicine tank from nebulizer main unit, press the button (Refer to Fig.2) and pull upward the transducer module simultaneously.

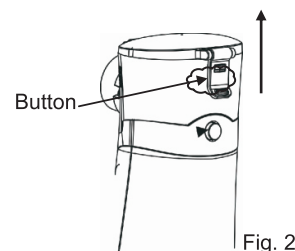


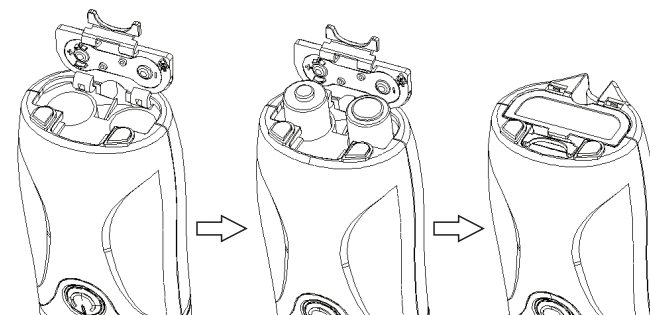
Fig. 2

6.2 Inserting batteries:

- To open the battery cover(6) on the underside of the device ,apply light pressure and pull the battery cover corner in the direction of the arrows, the fold the lid up
- Insert two batteries(type AA LR6)
- Ensure that the poles of the batteries are touching their respective poles in the device
- Fold the battery cover lid down again.

Note:

- .When changing batteries, ensure that the medicine container is completely empty ,otherwise there is a risk of leaks.
- .When the orange LEDs(8) light up, replace all two batteries, because spraying becomes much less effective when batteries are weak.
- .You can operate the device for approx. 100 minutes with new alkaline batteries.



.This is sufficient for 5~8 applications in saline liquid

7, Operation

7.1 Filling medicine into medicine tank:

- Open medicine tank by lifting the hook. (Refer to Fig.6, 5)
- Fill medicine into medicine tank. (Refer to Fig. 7)
- Close the medicine tank by pressing the hook firmly and securely back to place. (Refer to Fig. 8)

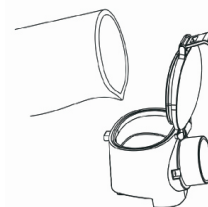


Fig 5

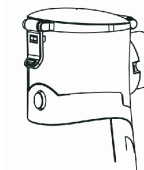


Fig 6

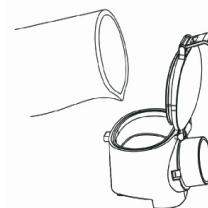


Fig.7

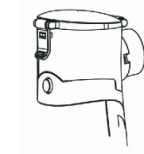


Fig.8

7.2 Inhalation with the mouthpiece

- Connect mouthpiece to mesh outlet. (Refer to Fig. 9)
- Sit upright and hold the device as upright as possible, do not tilt the device more than 45 degrees in any direction.
- Enclose the mouthpiece completely with your lips.
- Press On/ Off button. There will be green LED light on On/ Off button.
Remark: At anytime during treatment, you can turn off the device by pressing On/ Off button.
- Breathe slowly and deeply in through your mouth and out through your nose.
- Once the medicine is nebulized completely, the device will turn off automatically.
Remark: Residue of medicine may remain inside the mouthpiece due to vapor accumulation.
- Disinfect and clean the device immediately after each use.
Remark: To prolong mesh component, allow at least 1 hour interval between each treatment.

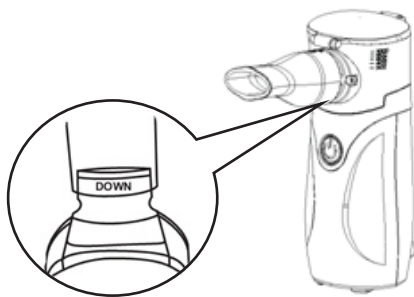


Fig. 9

7.3 Inhalation with the mask

- Connect mask connector to mesh outlet, then connect mask to the mask connector. (Refer to Fig. 10, 11)
- Sit upright and hold the device as upright as possible, do not tilt the device more than 45 degrees in any direction.
- Put the mask connector between chamber and mask.
- Press On/ Off button. There will be green LED light on On/ Off button.
Remark: At anytime during treatment, you can turn off the device by pressing On/ Off button.

- Breathe slowly and deeply in and out through your nose.
- Once the medicine is nebulized completely, the device will turn off automatically.
Remark: Residue of medicine may remain inside the mask connector to vapor accumulation.
- Disinfect and clean the device immediately after each use.
Remark: To prolong mesh component, allow at least 1 hour interval between each treatment.

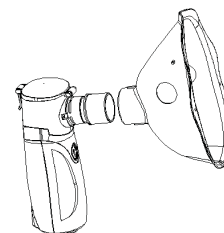


Fig. 10

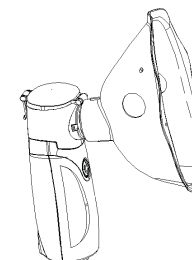


Fig. 11

Note:

You can collect the residue of medicine inside mask tube and put it back to medicine tank to vaporize again. (Refer to Fig.12)

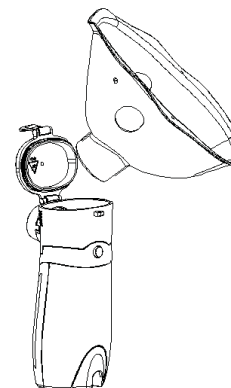


Fig. 12

7.4 Possible reasons why the device does not power on

- Over tilt operation- more than 45 degrees.
- Medicine tank is empty. The device automatically stops when medicine tank is empty in order to prevent damage to ultrasonic components.
- Medicine inside the medicine tank has bubbles. Slightly shake the medicine tank to delete bubbles.
- Using pure water (or steam water) may cause no vapor at all. Saline water is recommended as normal vapor operation.

8, Cleaning and disinfecting

Disinfection, cleaning method and maintenance requirement:

After each use, make sure to disinfect and clean the mesh nebulizer following below instructions, otherwise, nebulizer may be damaged. Warranty does not cover damage caused by incorrect cleaning method.

- Put 8ml of tap water to medicine tank and let it vaporize again. This is to clean the mesh hole.
- After the water is completely vaporized, remove the transducer module from the nebulizer main unit.
- Put 8ml of ethyl alcohol to the medicine tank for at least 10 minutes. Slightly shake the transducer module to disinfect medicine tank. (Refer to Fig.13)
- Put 8ml of ethyl alcohol on the mesh outlet for at least 10 minutes. (Refer to



Fig 13

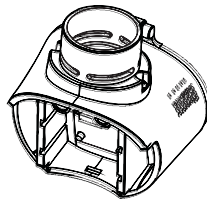


Fig 14

Remark: Do not touch the plastic mesh. Do not use any object to clean the plastic mesh.

- Clean used accessory (mask, mouth piece, mask connector) under tap water. (Refer to Fig. 15, 16,17)
- Use cotton bud with ethyl alcohol to clean the 5 golden poles contact on the nebulizer main unit (3 poles) and underneath the transducer module (2 poles) (Refer to Figure 18, 19)
- Allow all parts to dry completely before packing away.



Fig 15



Fig 16



Fig 17

Important

- Always turn off/ unplug the device, let it cool off before disinfecting and cleaning the device.
- Do not let water enter the nebulizer main unit. Do not put the nebulizer main unit under running water. This will damage the device.
- Do not touch the plastic mesh hole as this will damage the unit.
- You can use soft dampened cloth to wipe the outside of main nebulizer unit.
- Never hold the complete device or nebulizer unit(1,2) under running water to clean it.

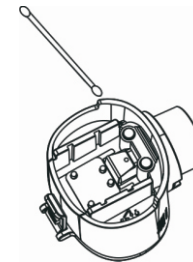


Fig.18

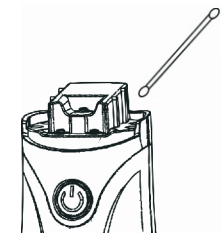


Fig.19

Disinfect:

The following parts can be cleaned by boiling

Mesh module,mouthpiece

- 1,Place the parts in a container filled with sufficient water,and bring to boiling
- 2,The parts can be disinfected by boiling for 5 to 10 minutes.
- 3,When disinfection is finished,immediately dry the parts by wiping thoroughly with new gauze.

- Never dry the parts in the microwave oven
- This is a personal use medical nebulizer, do not share medicine tank, mouthpiece, mask with other people.
- Never wipe dry with tissues or cloth. Dust or lint left on the mesh may affect nebulization.

Warning

- This is a personal use medical nebulizer, do not share medicine tank, mouthpiece, mask with people.
- Do not use medicine with viscosity higher than 3 in this device, Mesh transducer module warranty excludes damage due to incorrect inappropriate medicine viscosity used.
- Do not use medicine powder with liquid in this device. Mesh transducer module warranty excludes damage due to improper use causing powder block on mesh hole.
- Follow disinfection, cleaning method and maintenance requirement after each use as instructions given in this manual to keep nebulizer clean.
- Tilt operation range: Comparing with other similar nebulizer products which can only operate very stable with vertical angle (90 degrees), NM211E can be used within 45 degree tilt angle. However, the vapor will stop if the tilt exceeds 45 degrees.
- Maximum capacity of medicine tank is 10ml. Do not put more than 10ml medicine into the medicine tank to avoid leakage. We recommend to fill 2~10ml liquid into medicine tank.
- When there is medicine inside the medicine tank, do not shake nebulizer with force or put it through strong impact. This behavior may cause liquid leakage into internal PCB and damage the device.
- No liquid operation protection: NM211E equips dual protection technology to protect ULTRASONIC transducer damage.
 - If there is no medicine in the medicine tank, the ultrasonic transducer will stop the operation
 - If there is almost no medicine in the medicine tank, and residue of medicine causes air bubbles, you can turn off the device manually.
- Do not use other accessories other than provided with the device.
- Repairs may only be carried out by specified authorized repair center, incorrect handling and faulty repairs may lead to danger.
- Avoid using the device in high electromagnetic environment.
- Always keep the device out of reach of children.

9, Technical specifications

Dimensions (LxBxH) : 126X52.5X52mm

Device weight: 110g(excluding batteries)

Battery operation: Alkaline battery AA x 2

Maximum volume of the inhaling product: Max. 10ml=10c.c.

Spray rate: approx. 0.25ml/minute

Oscillation frequency: 100kHz

Medium size of the particles: 4.8µm

Mains connection: 100-240Vac, 50-60Hz; 0.15A

Residual volume (inside medicine tank): < 0.7ml

Storing conditions:

Temperature: -20°C to 60 °C

Relative humidity: less than 93%, in absence of condensate.

Operating conditions:

Temperature: min. 5 °C; max. 40 °C

Relative humidity: Relative humidity: 15%-93%, in absence of condensate

Atmosphere pressure: 700hPa~1060hPa

- **Contact your agent if you want to order accessory - adult mask, kid mask, mask connector, mouthpiece, and mesh transducer module.**

Troubleshooting

Problem/Question Possible Cause/Remedy

The nebulizer produces little or no aerosol . Output is too low

1. Too little medicine in the nebulizer.
2. The nebulizer is not held in an upright position
3. The medicine is unsuitable for spraying (e.g. too thick, viscosity of more than 3).The medicine solution should be specified by the doctor.
4. The batteries are almost flat. Please change batteries.
5. There may even be air bubbles inside the medicine container which are preventing the medicine from coming into contact with the mesh. Please check and remove any air bubbles.
- 6.Mesh holes may be blocked by unknown particles,the vapor cannot go through the mesh holes.

To test: Put 6ml. of water inside medicine tank and nebulize,if nebulization time takes longer than 30 minutes,mesh holes are blocked.

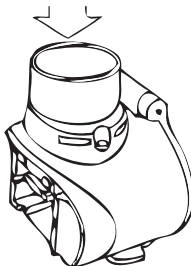
Solution A: To clean mesh holes and melt the blocked particles,put a solution of 2 drop of vinegar +6ml.water into the medicine tank,let the solution nebulize completely.Afterwrds,clean and disinfect the device thoroughly(refer to Cleaning and disinfecting section)before using ti for a treatment.

Solution B:Reverse clean operation.If vinegar +plus water solution cannot clean the mesh holes, you can run a reverse clean operation.

- a.1 To go to reverse clean mode:Press and hold the Power on/off button(around 5 seconds) until you see an purple light flash once from the Power on/off button
- a.2 After the purple light flashed once,the Power on/off will return to blue light.
- a.3 Add 2ml. of water into the mesh outlet (refer to picture).The water will nebulize from, mesh outlet to the medicine tank.
- a.4 After the water is nebulized completely into the medicine tank,turn off device manually by pressing Power on/off button.

Note:When device is in reverse clean mode,it will not power off automatically after nebulization.

- 4.If problem persists after checking all possible causes,please contact authorized distributor to get a new mesh transducer module.



Which medicines are suitable for inhalation?

Only the doctor can advise you which medicine to use to treat your condition.

Consult your doctor.

With the NM211E, you can spray medicines with a viscosity lower than 3.

Some inhalation solution remains in the nebulizer.

This is normal and occurs for technical reasons. Stop inhaling as soon as you can hear a marked difference in the sound made by the nebulizer, or when the device switches off automatically due to insufficient inhalant.

What special steps should be taken for babies and children?

1. In babies, the mask should cover the mouth and nose to guarantee effective inhalation.
2. In children, the mask should also cover the mouth and nose. Nebulisation next to a sleeping person is not suitable because insufficient medicine reaches the lungs.

Note: Children should only use the device with help and under supervision of an adult. Never leave a child alone with the nebulizer.

Inhalation with the mask takes longer

This is for technical reasons. Less medicine is inhaled per breath through the mask holes than using the mouthpiece. The aerosol is mixed with ambient air through the holes in the mask.

Does each user need their own accessories?

This is absolutely necessary for hygiene reasons.

NOTE:

if the device is used outside of the specifications, proper function is no longer guaranteed! We reserve the right to make technical changes to improve and further develop the product.

This device and its accessories comply with European standards EN60601-1 and EN60601-1-2, as well as EN13544-1, and is subject to special safety measures in terms of electromagnetic tolerance. Note that portable and mobile RF communication equipment can affect this device. For detailed information, contact customer service at the address provided. The device conforms to the requirements of the European Directive for Medical Products 93/42/EC, the MPG (German Medical Devices Act).

ELECTROMAGNETIC COMPATIBILITY

- The device complies with current specifications with regard to electromagnetic compatibility and is suitable for use in all premises, including those designated for private residential purposes. The radio frequency emissions of the device are extremely low and in all probability do not cause any interference with other devices in the proximity.
- It is recommended that you do not place

The device on top of or close to other devices. Should you notice any interference with other electrical devices, move the device or connect it to a different socket.

- Radio equipment may affect the operation of this device.

10, Disposal

In the interest of environmental protection, do not dispose of the device in household waste.



Please dispose of the device in accordance with the EC Directive for waste electrical and electronic equipment **2002/96/EC – WEEE**

If you have any questions, please contact the local authorities responsible for waste disposal.

Batteries (including rechargeable batteries) should not be disposed of with domestic waste. As a consumer, you are legally obliged to return used batteries. You can hand in your old batteries at public collection points authorised by your local council or wherever batteries

 You will find this symbol on batteries containing toxic substances:



Pb=battery contains lead,
Cd=battery contains cadmium,
Hg=battery contains mercury

The batteries for this device do not contain any toxic substances.

11, Warranty and service

There is a 3-year warranty covering the product material and manufacturing defects.

The warranty does not cover:

- damage resulting from incorrect operation
- wearing parts (e.g. mesh nebulizer, etc.)
- defects that the customer was already aware of at the time of purchase
- damage for which the customer is responsible

Mesh nebulizer, mask suggest changing once per 1 years

The customer's statutory rights are not affected by the guarantee.

The customer must be able to show proof of purchase before any warranty

claim can be entertained within the warranty period.

12, Accompanying Documents:

12.1. Instructions for use

12.1.1. NEBULIZER MODEL NM211E needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the

ACCOMPANYING DOCUMENTS;

12.1.2. Portable and mobile RF communications equipment can affect NEBULIZER MODELNM211E.

12.2. Technical description

1. **Warning** that the use of accessories, transducers and cables other than those specified with the exception of transducers and cables sold by the manufacturer of the NEBULIZER MODELNM211E as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the NEBULIZER MODELNM211E.

2. **Warning** that the NEBULIZER MODELNM211E should not be used adjacent to or stacked with other equipment

3.

Guidance and manufacturer's declaration – electromagnetic emissions		
The NEBULIZER MODELNM211E is intended for use in the electromagnetic environment specified below. The customer or the user of the NEBULIZER MODEL NM211E should assure that it is used in such an environment.		
Emissions	Compliance	Electromagnetic environment-- guidance
RF emissions CISPR 11	Group 1	The NEBULIZER MODEL NM211E uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The NEBULIZER MODEL NM211E is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

4.

Guidance and manufacturer's declaration – electromagnetic immunity			
The NEBULIZER MODELNM211E is intended for use in the electromagnetic environment specified below. The customer or the user of the NEBULIZER MODELNM211E should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment --guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines and dc lines	±2 kV for power supply lines and dc lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) and neutral	±1 kV line(s) and neutral	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U _T (>95 % dip in U _T) for 0,5 cycle 40 % U _T (60 % dip in U _T) for 5 cycles 70 % U _T (30 % dip in U _T) for 25 cycles <5 % U _T (>95 % dip in U _T) for 5s	<5 % U _T (>95 % dip in U _T) for 0,5 cycle 40 % U _T (60 % dip in U _T) for 5 cycles 70 % U _T (30 % dip in U _T) for 25 cycles <5 % U _T (>95 % dip in U _T) for 5s	Mains power quality should be that of a typical commercial or hospital environment. If a dips or an interruption of mains power occurs, the current of the NEBULIZER MODEL NM211E may be dropped off from normal level, it may be necessary to use uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U _T is the a.c. mains voltage prior to application of the test level			

5.

Guidance and manufacturer's declaration – electromagnetic immunity			
The NEBULIZER MODEL NM211E is intended for use in the electromagnetic environment specified below. The customer or the user of the NEBULIZER MODEL NM211E should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the NEBULIZER MODEL NM211E, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1,2\sqrt{P}$ $d = 1,2\sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2,3\sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$ where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation Distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the NEBULIZER MODEL NM211E is used exceeds the applicable RF compliance level above, the NEBULIZER MODELNM211E should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the NEBULIZER MODEL NM211E.			
b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			