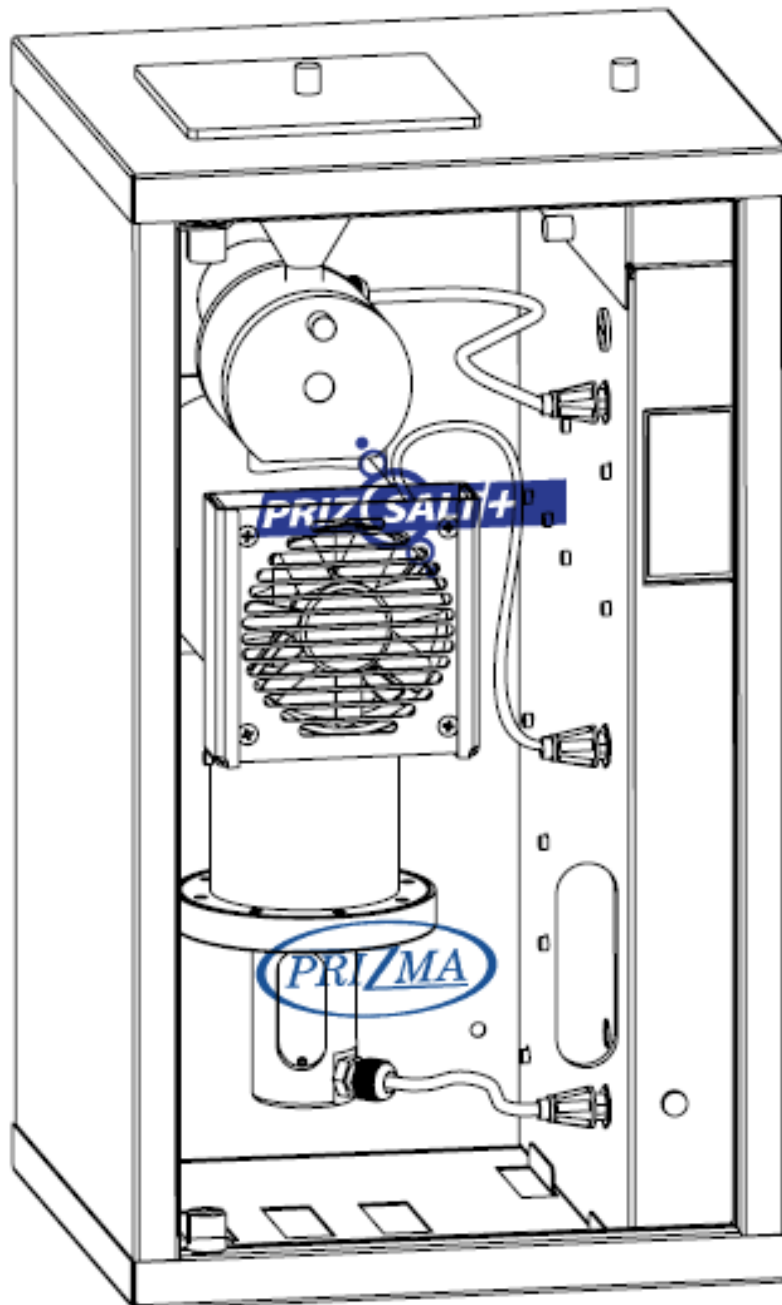


Dear customer,



Thank you for purchasing this PRIZMA's device. Be sure to read this instruction manual thoroughly before using the product so that you can use it safely and correctly. Please keep this instruction manual always at hand for future reference.

Be sure to use the device properly according to the instructions given by medical professionals.

**MAKE SURE TO READ THIS SECTION**

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# Revision list

| <b>Version</b> | <b>Date:</b> | <b>Description of changes:</b> |
|----------------|--------------|--------------------------------|
| 1.0            | Dec 2015.    | Initial version                |



Please understand that PRIZMA is not liable for the following:

1. Any trouble and/or damage caused by the maintenance and/or repair conducted by other than PRIZMA or PRIZMA's authorized dealer.
2. Trouble and/or damage of PRIZMA's product caused by the product of other manufacturer not delivered by PRIZMA.
3. Trouble and/or damage caused by maintenance and/or repair using the repair part(s) not authorized by PRIZMA.
4. Trouble and/or damage caused as a result of not observing the Notes on Safety or operating method mentioned in this Instruction manual.
5. Deviation from the operating conditions of the product mentioned in this Instruction manual including the power source and installation environment.
6. Trouble and/or damage caused as a result of modifying and/or improper repair of the product.
7. Trouble and/or damage caused by natural disasters such as fire, earthquake, flood or lightning.












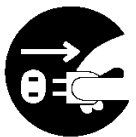
1. The content of this Instruction manual are subject to change for improvement without prior notice.
2. The content of this Instruction manual has been prepared with care and attention. However, if you find any omission or error, please inform your local PRIZMA representative or dealer.
3. It is prohibited to copy all or a part of this Instruction manual without getting PRIZMA's permission. Unless you use this Instruction manual for your personal (corporate) purpose, you are not allowed to use it without PRIZMA's permission in accordance with the Copyright Act.



# Notes on safety



- The warning signs and the sample icons shown here are listed for you to use this product safely and correctly as well as to prevent the risk of injury to you and others.
- The icons and meanings are as follows:



| Warning sign   | Contents  |
|--|---|
|  <b>Warning</b> | Indicates situations in which the possibility of death or severe body injury may arise as a result of incorrect handling. |
|  <b>Caution</b> | Indicates situations in which body injury or material damage* may arise as a result of incorrect handling.                |




\* Material damage refers to a wide range of damage involving your house, household goods, domestic animals and pets.

| Examples of signs   |   |  |   |  |
|---|---|--|---|--|
| The  icon indicates caution (including warning and danger). Situations involving actual caution are indicated by statements or pictures in or near  .   |    | The sign refers to "caution for flammability".   |    | The sign refers to "caution for electric shock". |
| The  icon indicates prohibitions (what you cannot do). Matters involving specific prohibitions are indicated by text or pictures shown in or near  .  |   | The sign refers to "prohibition to disassemble". |   | The sign refers to "general prohibition".        |
| The  icon indicates something that is compulsory (must be observed at any time). Situations involving specific compulsory actions are indicated by statements or pictures shown in or near  . |  | The sign refers to "general compulsion".         |  | The sign refers to "unplugging the power plug".  |




|  <b>Warning</b>  |   |
|---|---|
| <p>Use only salt approved for medical purposes, according to doctors instructions.</p> <ul style="list-style-type: none"> <li>• Patient's physical condition may get worse.</li> </ul> <p>Consult your doctor to assess your suitability to treatment using this device, i.e. patient's physical condition may get worse during or after treatment.</p> <ul style="list-style-type: none"> <li>• Patient physical condition may get worse.</li> </ul> <p>Clean the device after use.</p> <ul style="list-style-type: none"> <li>• Salt is deposited inside the device while working. Salt is a corrosive substance. Corrosion can occur and damage some parts of the device.</li> </ul> <p>In case of a problem with this device please, contact your local PRIZMA service representative (address on/ inside package).</p> |  |

|  |   |
|--|---|
| <p>Do not use this device in the vicinity of flammable gases or in areas with high risk of explosion.</p> <p>Only salt can be nebulised.</p> <p>Do not disassemble the device while plugged into an electric outlet.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or injure yourself.</li> </ul>              |  |
| <p>Do not operate the device with wet hands.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or injure yourself.</li> </ul> <p>Do not wash the device with water, or pour water over it.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock in the event of a short circuit.</li> </ul> |  |

|  <b>Warning</b>   |   |
|--|---|
| <p>The device is intended for dry salt inhalation.</p> <ul style="list-style-type: none"> <li>If you use other substances, malfunction may occur or the device may be damaged.</li> </ul> <p>If the product parts have already become dirty before using the device, clean them first before use.</p> <ul style="list-style-type: none"> <li>If the salt remains in the device, the degradation of its performance may occur.</li> </ul> <p>Disposal of this device should be carried out in accordance with national regulations for disposal of electronic products.</p> |  |

|  <b>Warning</b>  |   |
|---|---|
| <p>If you are not going to use the device for a long time, be sure to unplug the power plug from the electric outlet.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or the device may ignite due to electric leakage.</li> </ul> <p>Be sure to turn off the power and unplug power supply when you install, remove, clean, or repair the device or take care of the parts.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or injure yourself.</li> </ul> <p>This equipment must be connected only to a supply mains with protective earth.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or injure yourself.</li> </ul> <p>Mains plug is considered as disconnecting device. Mains power outlet used for connection of the halogenerator to the mains should be easily reachable to the operator.</p>  |  |
| <p>Do not look into the output air flow during nebulisation.</p> <ul style="list-style-type: none"> <li>Large amounts of salt can reach your eyes and cause damage.</li> </ul> <p>Do not fill the tank with any substances other than pure dry salt approved for medical use.</p> <ul style="list-style-type: none"> <li>Damage to the device or performance degradation may occur.</li> </ul> <p>Do not use the power cord or plug if it is damaged, or do not plug into a loose electric outlet.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or short circuit may occur and cause ignition.</li> </ul> <p>Do not scratch, tear, modify, bend by using force, pull, twist, or bundle the power cord. Do not place heavy objects on the power cord. Keep power cord away from heated or hot surfaces.</p> <ul style="list-style-type: none"> <li>You may suffer an electric shock or the device may ignite due to short circuit caused by deteriorated insulation.</li> </ul> |  |

# Notes on safety

|   |   |
|---|---|
| <p>Do not perform disassembly, repairs or modifications of any kind.</p> <ul style="list-style-type: none"><li>• It may cause malfunction of the device or human injury.</li><li>• There are no parts serviceable by user inside the device.</li></ul> <p>Contact your nearest PRIZMA service representative.</p>   |  A circular prohibition sign with a diagonal slash over a screwdriver icon, indicating that disassembly is not allowed.                          |
| <p>Do not use a power cord other than the supplied one.</p> <ul style="list-style-type: none"><li>• The device may ignite or you may suffer an electric shock.</li></ul> <p>Be sure to use the specified power source.</p> <ul style="list-style-type: none"><li>• The device may ignite or you may suffer an electric shock.</li></ul> <p>Do not share the electrical socket with other electrical devices.</p> <ul style="list-style-type: none"><li>• The device may ignite or you may suffer an electric shock.</li></ul> <p>To unplug, do not pull the power cord. Instead, hold the power plug with your hand.</p> <ul style="list-style-type: none"><li>• The power cord may be damaged, short circuit may cause fire, or you may suffer electric shock.</li></ul> |  A triangular warning sign with a flame icon inside, indicating a fire hazard.   |
| <p>Do not open the door of the halogenerator when treatment session is in progress.</p> <ul style="list-style-type: none"><li>• There are rotating parts inside the halogenerator. They can cause human injury.</li></ul>   | <p>WARNING</p>  A triangular warning sign with an exclamation mark inside, indicating a general warning. <p>DO NOT OPEN<br/>DURING OPERATION</p> |

## General advice

Do not use the device for any purpose other than inhalation.

Do not use any parts other than the accessories or optional parts listed in this Instruction Manual.

Do not fill the tank with more than 150g of dry salt.

Do not block the air ventilation holes at the bottom side of the device.

Do not inhale if the deflector plate is removed.

- Large amount of salt can reach your skin or eyes.

After cleaning the parts, dry completely before re-assembling.

Do not wipe the door with alcohol.

Do not wipe the device with volatile chemicals, such as benzene or thinners.

Although this device fulfils the provisions of the EMC (Electromagnetic Compatibility) directive, the use of it should be avoided in direct vicinity of other electric devices.

Do not allow unsupervised children or infirm persons to use the device.

## Maintenance

Before using the device, make sure to confirm that the device operates normally and safely.

## How to deal with faults or accidents

If an error occurs, immediately take the following measures:

- 1) Turn power to the unit OFF and unplug from the electrical outlet.
- 2) Place a notice on the device "Faulty-Do not use".
- 3) Contact the store where you purchased the product or the nearest PRIZMA dealer.



# Intended use

## Intended use

|                            |  |
|----------------------------|--|
| <b>Intended use</b>        | Treatment of respiratory disorders using dry aerosol of pure NaCl, governed under supervision of qualified personnel.  |
| <b>Intended users</b>      | Doctors, nurses, therapists, etc.<br>User must understand the proper use of the equipment.   |
| <b>Intended patients</b>   | Alert, mentally competent, conscious, spontaneously breathing children and adults with normal body temperature except with: <ul style="list-style-type: none"><li>• acute stage of disease,</li><li>• chronic respiratory failure,</li><li>• chronic obstructive lung disease with 3rd stage of chronic lung insufficiency,</li><li>• intoxication,</li><li>• cardiac insufficiency,</li><li>• bleeding,</li><li>• spitting of blood,</li><li>• hypertension in IIB stage,</li><li>• all internal diseases in decompensation,</li><li>• pregnancy.</li></ul> |
| <b>Working environment</b> | Device is intended for use in salt rooms in medical and wellness centres.  |
| <b>Lifetime</b>            | 5 years.   |
| <b>Precautions for use</b> | User must read warnings and cautions in this instruction manual.   |

## Features of the product

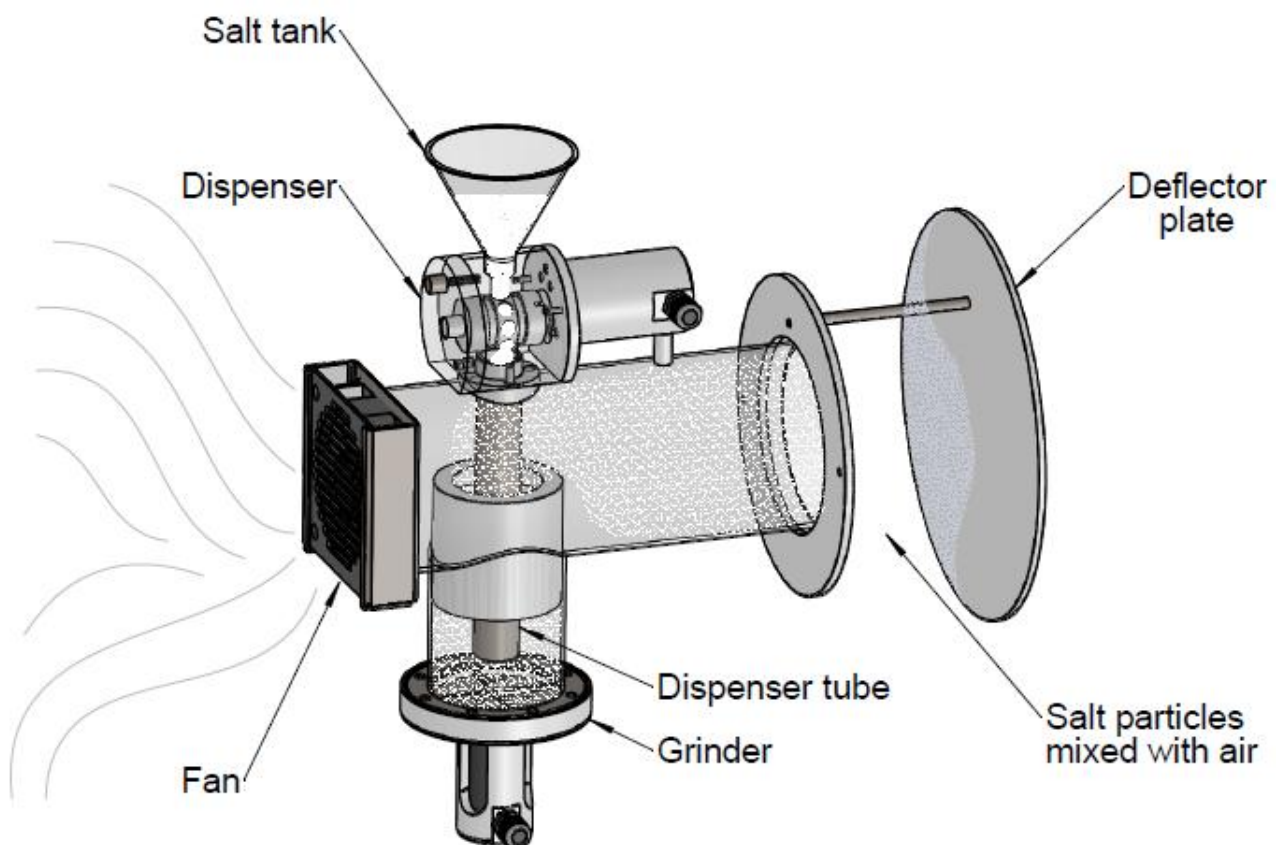
- 1** All mechanical parts and electronics are located inside one cabinet. Device is powered from the mains, via power cord.
- 2** Touch screen displays program number, salt dispensing mode during inhalation, remaining time of inhalation and indication of problems during inhalation. The back-light illuminates the display in darkness.
- 3** There is a touch-sensitive surface on the display. It allows easy interactive device operation. The unit has a notification buzzer. The buzzer makes a sound when some of the commands on display are touched.
- 4** This device operates in the unlicensed ISM band at 2.4GHz, using BLUETOOTH communication. In case this product is used nearby other wireless devices, including microwave and wireless LAN, operating in the same frequency band, there is a possibility that interference occurs between this product and such other devices. If interference occurs, please stop the operation of other devices.



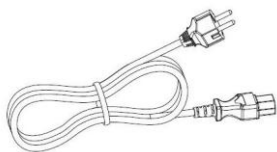
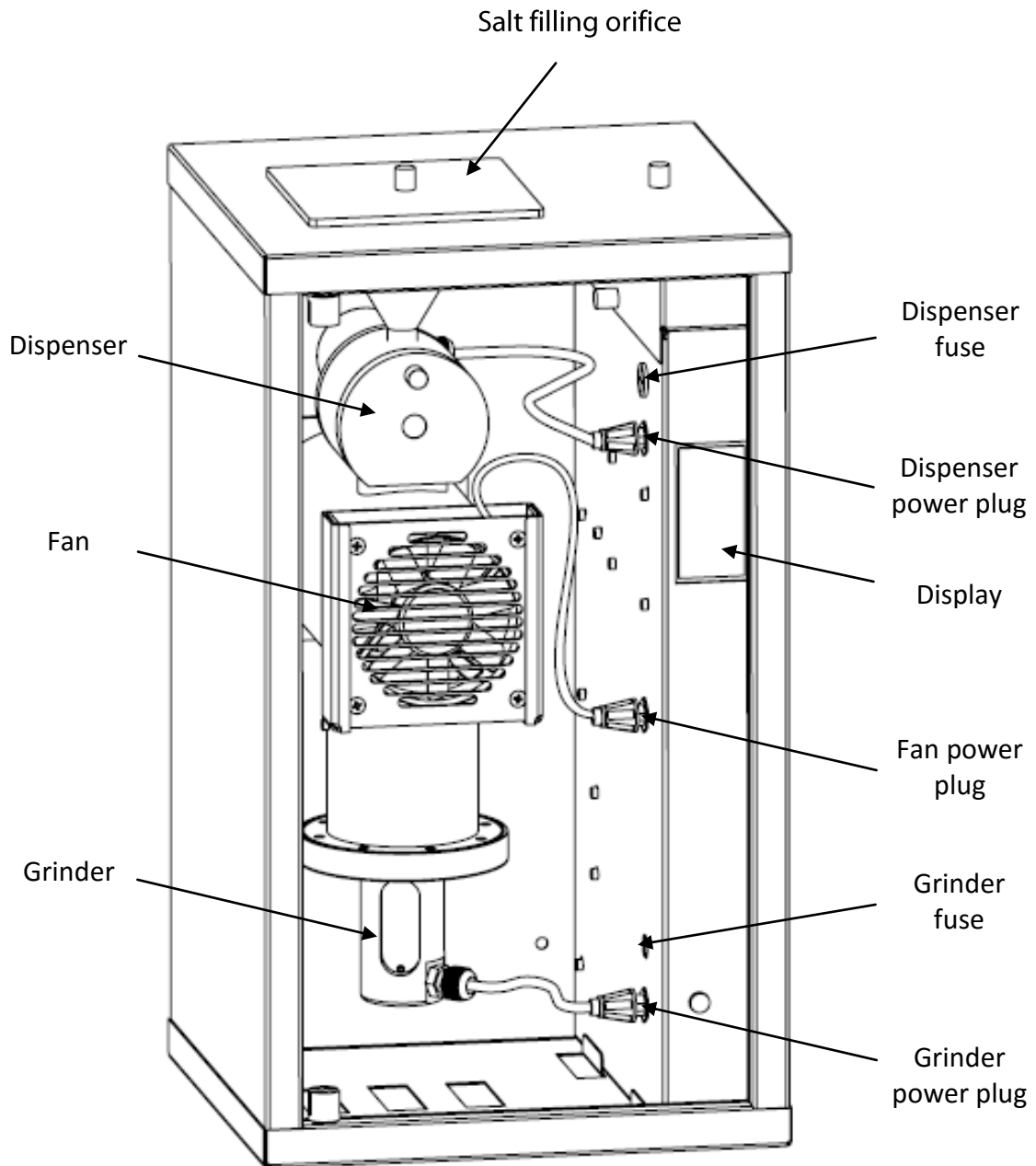
# About the device

## Principles of operation

- 1) The dispenser works in programmed time intervals and drops small amounts of salt from the salt tank down to grinder.
- 2) Grinder breaks salt grains to salt dust particles of various size, from few microns to parts of millimeter.
- 3) Air flow pulls small and light salt particles from the grinder and blows them out.
- 4) Output airflow containing salt particles hits the deflector plate. Coarse and heavy salt particles are not able to follow sudden change of airflow, they hit the deflector plate and drop down. Fine and light particles can follow the airflow, pass the deflector plate and get inside the salt room.
- 5) It is assumed that the device is mounted outside the salt room, with patient being inside and operator in the vicinity of the device.



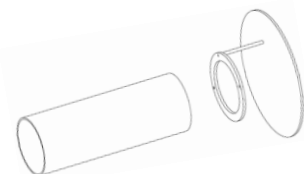
## Parts of the device



Power cord



Brush  
4 pcs



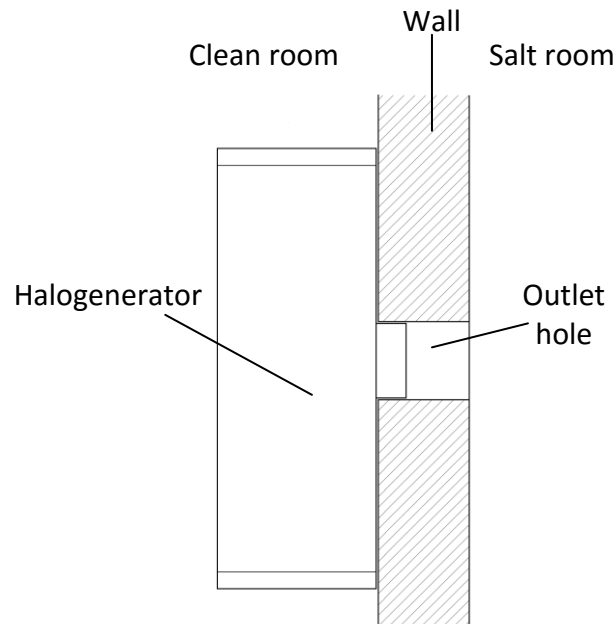
Extention  
sleeve

Deflector

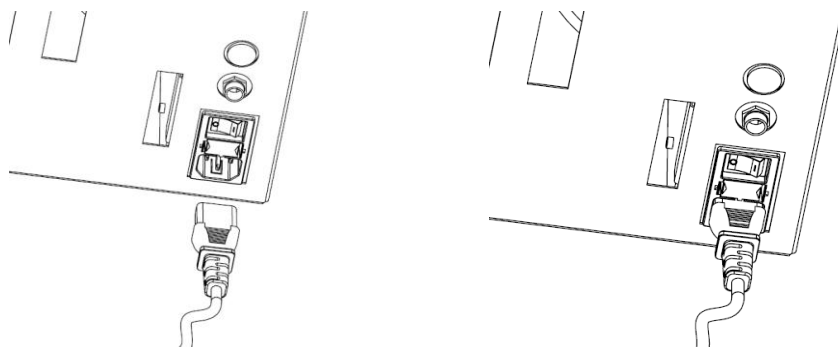
# Installation

## Installation

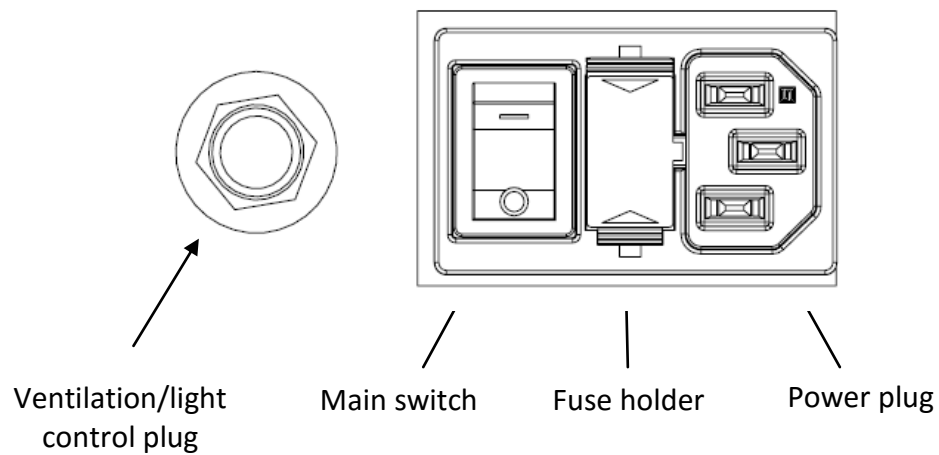
1. Choose appropriate position for halogenerator on wall between clean room and salt room. Center of the outlet hole should be about 1m above floor level.



2. Use montage pattern and mark 4 holes for anchors and 110 mm diameter hole for outlet in the wall.
3. Drill a 110 mm diameter hole for outlet in the wall, between clean room and salt room.
4. Drill four 8mm diameter holes for nylon anchors, and insert the anchors into the holes.
5. Mount the halogenerator on the wall selecting four 5.5x60mm-DIN7997 metal screws.
6. Insert power cable to power plug and connect to earthed mains power inlet.

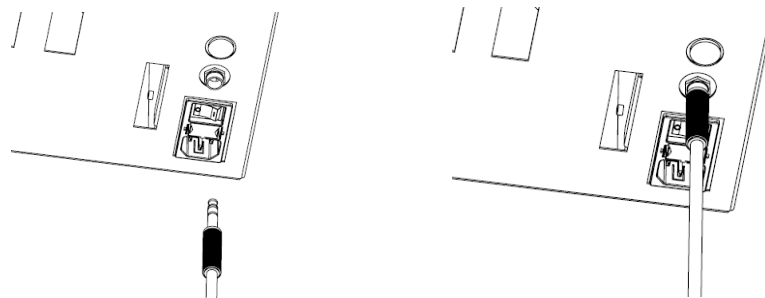


**Note: Power plug is on the bottom side of the halogenerator.**



**Note: Mains plug is considered as disconnecting device. Mains power outlet used for connection of the halogenerator to the mains should be easily reachable to the operator.**

7. If you use an external circuitry for ventilation and light control, insert jack in plug for control of external circuitry (central jack conductor always carry +24VDC, shield is connected to 0V when session is in progress, and disconnected when session is not in progress. Plug can carry current for one control relay operating on 24VDC (max 100mA).

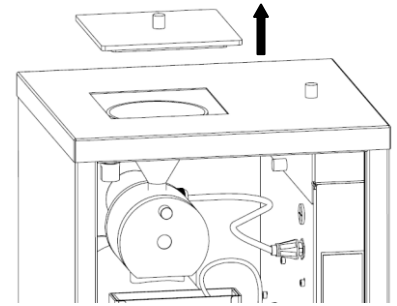


**Note: Plug for control of external circuitry is on the bottom side of the halogenerator.**

# Preparation for inhalation

## 1. Intake of salt.

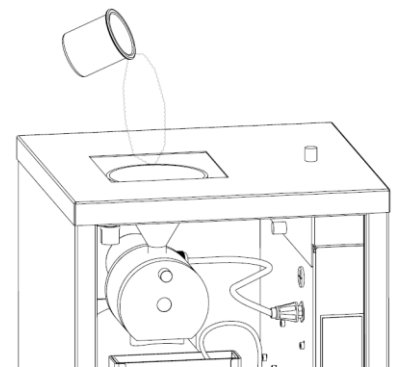
Remove the salt tank cover.



Prepare the salt for use. For proper operation of the device, salt must be dry.

If the salt is wet, it is necessary to heat it up for 5-10 minutes to 80°C in order to remove moisture.

Pour the salt into the salt tank. Maximum allowable quantity of salt is 150g.

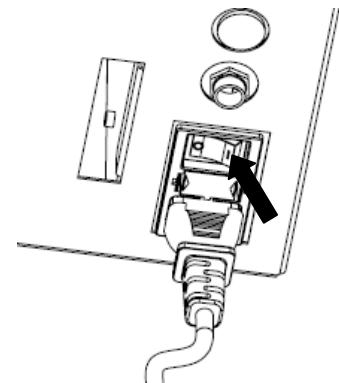


## 2. Switching on the device.

Close the door of halogenerator.

Turn the main switch on (position "1").





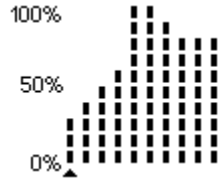






**Note: The main switch is on the bottom of the control unit.**



The unit is operated by pressing the command buttons on screen touch display or by remote wireless device.

If you touch a command button, the unit will produce a short sound. This way, a user has both tactile and audible signs of operation.




**Note: To avoid damaging the screen, please do not touch it with your fingernails or sharp objects, only with finger tip.**

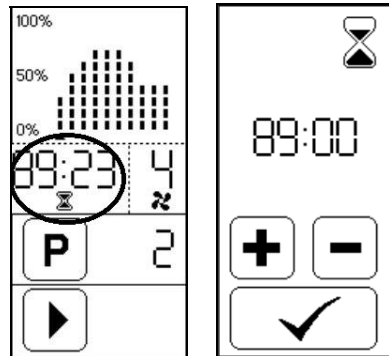
| Description of icons on screen  |   |
|---|---|
| Treatment duration setup. Treatment duration is displayed next to the button. |    |
| Program selection.  |    |
| Air volume setup.   |    |
| Choosing inhalation steps.  |   |
| Bar graph showing salt dispensing status during inhalation.                   |  |
| Start the treatment.  |  |
| Pause the treatment.  |  |
| Quit the treatment.   |  |
| Increase the value of the selected parameter.                                 |  |
| Decrease the value of the selected parameter                                  |  |
| Confirm settings  |  |





# How to inhale

## 1. To set up duration of treatment

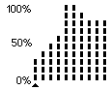






Press button  or displayed number for therapy duration. Device will enter therapy duration setup menu. Duration of treatment can be set by pressing  or . Maximum duration of treatment is 99 minutes. Duration of treatment is displayed in the middle of screen.

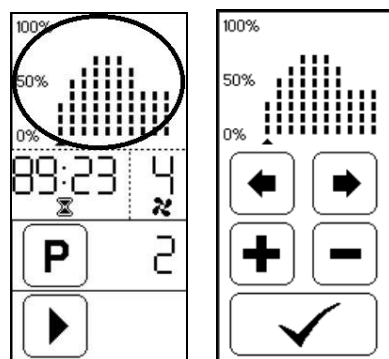


## 2. To set inhalation program





Duration of treatment and salt dispensing mode can be stored among nine programs. Press button  to select the program. Choose a program from 1 to 9 by pressing button . Each pressing button will advance selected program number to one, in sequence P1 - P2 - P3 - P4 - P5 - P6 - P7 - P8 - P9 - P1.

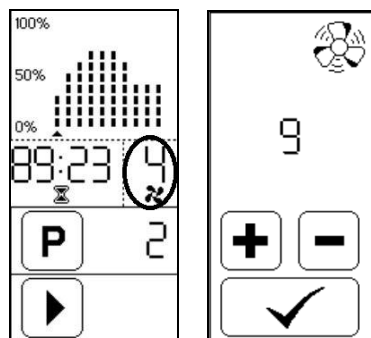
## 3. To set salt dispensing mode

Salt dispensing mode is displayed in the bar graph . Duration of treatment is divided into 10 equal time intervals. Each time interval is assigned to a bar graph column. Amount of dispensed salt may be adjusted from 0 to 100% of the capacity separately for each time interval. Press displayed bar graph. Cursor  can be moved left or right below the bar graph by pressing the buttons  . Cursor must be placed below the bar graph whose value should be set. By pressing  and  it is possible to set the salt dispensing value from 0% to 100% in 10% steps. Press  to confirm.







## 4. To set air volume

Press button  or displayed number above. Device will enter air volume setup menu. Air volume can be set by pressing  or . Air volume value may be adjusted from 1 to 9. Press  to confirm.

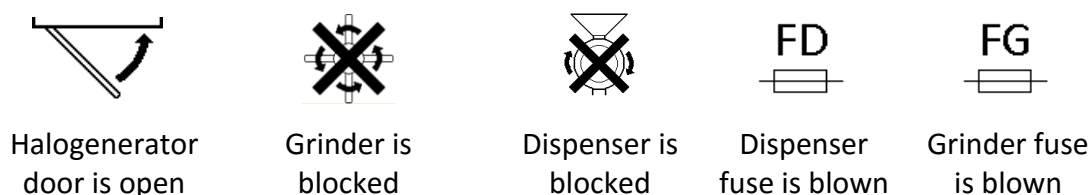



## 5. To start up the treatment

Press button  to start the treatment. It will start if the door of the halogenerator is closed and grinder is not blocked. The button  will change into , and button  will appear on screen. The countdown of the treatment starts. Cursor below the bar graph is moving during the treatment and shows the current step. When the time of treatment has expired, nebulisation will stop and notification buzzer will sound.

It is possible to adjust the salt dispensing mode and fan speed during the treatment. It is not possible to change the treatment duration if it is in progress.

If the door of the halogenerator is opened, the grinder is blocked or some of fuses are blown, the treatment will not start and error description symbol will be displayed on the screen.




After fixing errors press button  and start the treatment again.

## 6. To pause the treatment

Treatment can be paused by pressing button . It will change into . Nebulisation and countdown will stop.

Treatment will continue at any moment by pressing the same button. The treatment countdown will start from the current value.

## 7. To quit the treatment

Treatment can be interrupted at any moment by pressing the button . A splash screen will appear on the display. The latest settings of air volume and nebulisation rate will be displayed. Duration of treatment will return to the start value before the session.

# After inhalation

## After inhalation:

- 1** Turn off the main switch (position "0").
- 2** Unplug the power plug from the electrical outlet.
- 3** Clean the halogenerator.

**Note:** It is important that you clean the grinder after each inhalation. Otherwise, salt will deposit on the dispenser and grinder and will decrease the efficacy of the treatment and salt aerosol concentration.

Salt deposits can cause malfunction or defects in the device.

In extreme cases salt deposits may obstruct the dispenser, fan or grinder and may damage the product parts (dispenser motor, dispenser gearbox, fan or grinder motor).

### **Warning**

Before disassembly and cleaning, turn off the main switch and unplug the power cord from the electrical outlet.

- You may suffer an electric shock or injure yourself.



# How to take care of product

## General advice

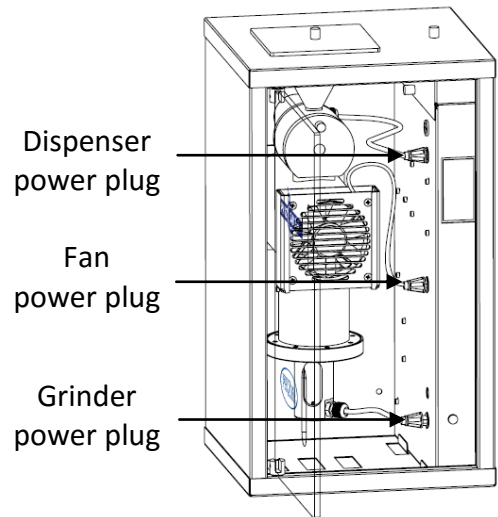
- Do not wipe the main unit with volatile chemicals, such as benzene or thinners.
- Do not clean the door with alcohol.

## 1. Preparing for cleaning

Turn off the main switch (position "0") on the bottom side of device.

Take door by hand and open it.

Locate positions of power plugs for dispenser, fan and grinder.

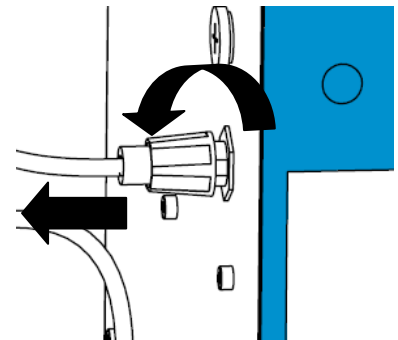


## 2. Disconnection of power plugs

Disconnect dispenser, fan and grinder power plugs.

Plug disconnection is a two-step process.

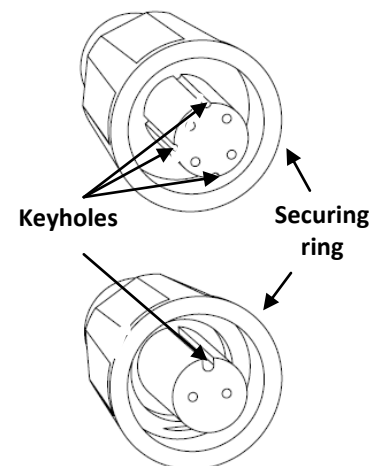
1. At the top of the plug is securing ring, preventing plug disconnection. Take securing ring by fingers and rotate it GENTLY counterclockwise until you feel resistance.
2. Pull the plug gently.



When you disconnect the plug, observe the keyhole at the top of the connector.

Keyhole prevents wrong assembly of the plug.

Plug assembly should be made in reverse order of disassembly. Align keyhole of plug, GENTLY push plug in place and rotate securing ring clockwise until you feel resistance.

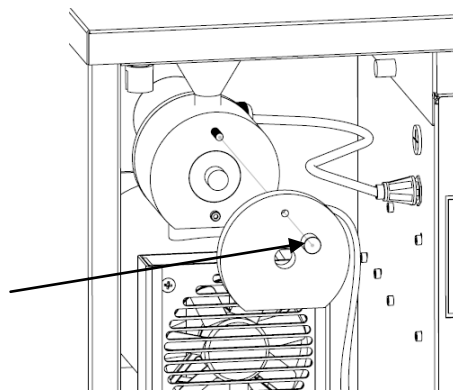


# How to take care of product

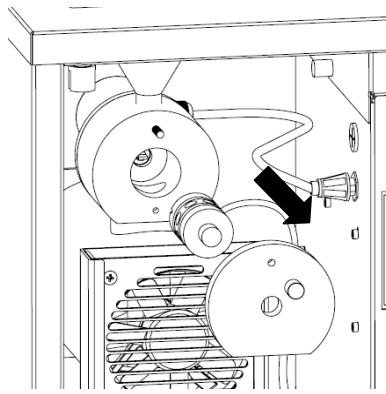
## 3. Dispenser cleaning

Rotate the dispenser screw nut until it is possible to pull it outside the dispenser body.

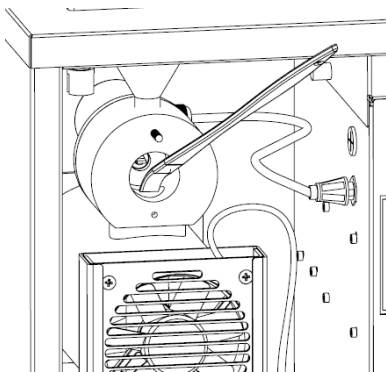
Dispenser screw nut



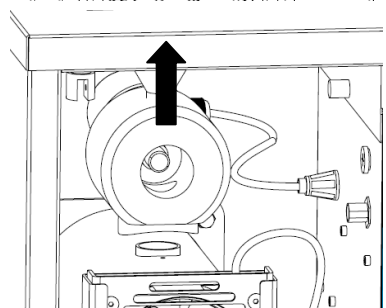
Pull the dispenser parts out of the dispenser body.



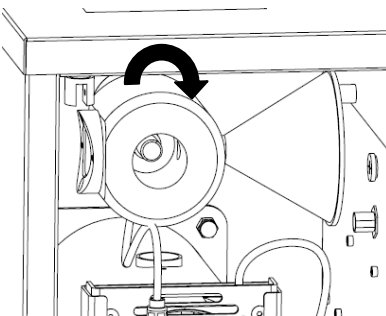
Wipe any salt on the inner surfaces of the dispenser to the dispenser tube inside body with a dry brush.



Take the dispenser by hand and move it up.

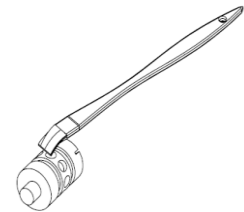


Rotate the dispenser and take it out of the halogenerator.

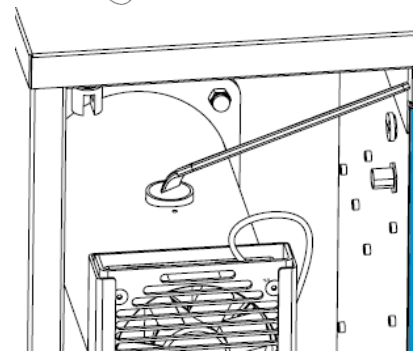


# How to take care of product

Remove the remaining salt inside the dispenser body and rotating part with a dry brush.



Use a long-stick brush to remove the remaining salt inside the dispenser tube.

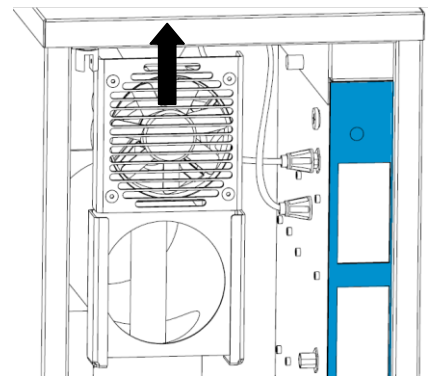


## 4. Fan cleaning

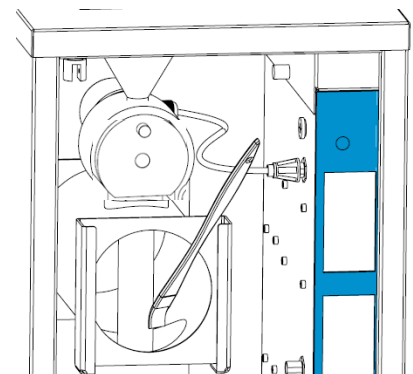
Take the fan cage by hand.

Pull the fan cage up and remove it from the halogenerator case.

Wipe out any remaining salt on all fan surfaces with a dry brush.



Wipe out any remaining salt on all halogenerator body surfaces with a dry brush.

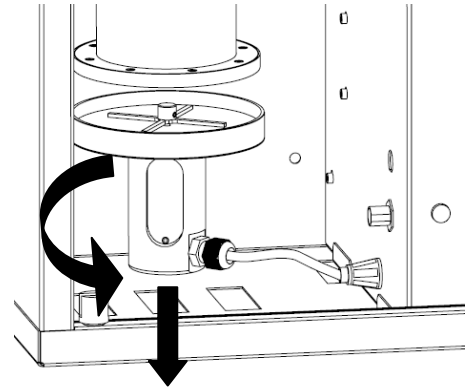


# How to take care of product

## 5. Grinder cleaning

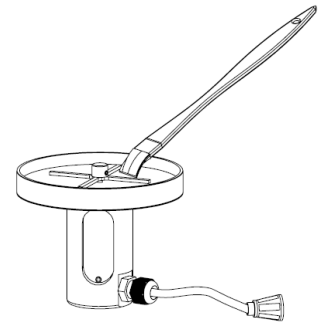
Hold the grinder flange by hand and slightly rotate the flange.

Pull the grinder down and take it out of halogenerator.

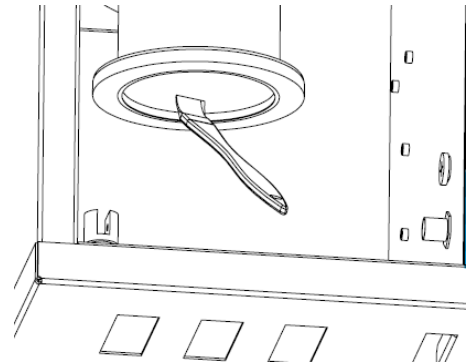


Clean all the surfaces of the grinder.

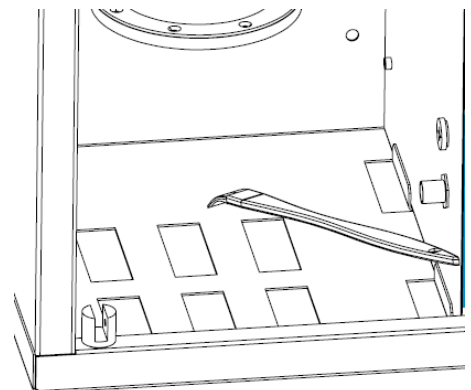
Do not forget to clean all the surfaces between the grinder and grinder flange.



Use a long-stick dry brush to get rid of the remaining salt inside the outer vertical tube.







Sweep up the salt collected on the bottom of the halogenerator case through the holes.



## 6. Assembly

Assemble all the parts in reverse order of disassembly.

# How to take care of product

|  <b>Warning</b>   |   |
|--|---|
| <p>Dry up all metal parts immediately if they get wet during cleaning.</p> <ul style="list-style-type: none"><li>• Metal parts may corrode.</li></ul>  |  |
| <p>Do not clean the door with alcohol.</p> <ul style="list-style-type: none"><li>• Alcohol may damage plastic.</li></ul>   |   |
| <p>Do not wash the product with water, or let water get into the power supply.</p> <ul style="list-style-type: none"><li>• Electrical leakage may occur in the unit or you may suffer an electric shock.</li></ul>                                       |  |
| <p>Be sure to turn off the power and unplug the power supply when you install, remove, clean, or repair the device or take care of the parts.</p> <ul style="list-style-type: none"><li>• You may suffer an electric shock or injure yourself.</li></ul> |  |
| <p>Be sure that the plug can be easily removed from a socket outlet!</p>   |   |

## Storing

If you do not intend to use the device for a period of time:

1. Be sure salt is thoroughly cleaned from the device.
2. Put a plastic cover over the salt filling hatch.
3. Close the device.



# Troubleshooting

## Troubleshooting

| Trouble   | Where to inspect  | How to correct   |
|---|---|--|
| The display does not light up.                                    | Is the power plug plugged into a socket?                            | Plug the device into the socket correctly.   |
|   | Is the main switch in position "1"?                                 | Turn on the power switch (position "1").   |
|   | Have the switch fuses blown?  | Replace the fuses.   |
| Product does not produce aerosol or amount of aerosol is reduced. | Is there salt in the salt tank?                                     | Pour salt in the salt tank.  |
|   | Is the dispenser power plug connected?                              | Connect the dispenser power plug.  |
|   | Is the dispenser clean?   | Clean the dispenser.   |
|   | Is the fan power plug connected?                                    | Connect the fan power plug.  |
|   | Is the grinder power plug connected?                                | Connect the grinder power plug.  |
|   | Is the grinder clean?   | Clean the grinder.   |
|   | Is the halogenerator door open?                                     | Close the halogenerator door.  |
| The display shows alarm "Grinder is blocked"                      | Inspect salt silts around and beneath rotating part of the grinder. | Use a small brush to carefully remove salt from the grinder and salt deposits collected beneath the grinder. |
| The display shows alarm "Dispenser is blocked"                    | Is the dispenser clean?   | Use a small brush to carefully remove salt from the dispenser.   |
| The display shows alarm "Dispenser fuse is blown"                 | Has the dispenser fuse blown?                                       | Replace the fuse.  |
| The display shows alarm "Grinder fuse is blown"                   | Has the grinder fuse blown?   | Replace the fuse.  |
| The display shows alarm "Halogenerator door is open"              | Is the halogenerator door open?                                     | Close the halogenerator door.  |

- If the unit does not operate normally after the above-mentioned measures, do not touch the internal mechanism and consult the store where you purchased the device or the nearest PRIZMA dealer.

## **Important information regarding Electro Magnetic Compatibility (EMC)**

With the increased number of electronic devices such as PC's and mobile (cellular) telephones, medical devices in use may be susceptible to electromagnetic interference from the other devices. Electromagnetic interference may result in incorrect operation of the medical device and create a potentially unsafe situation.

Medical device should not interfere with other devices as well.

In order to regulate the requirements for EMC (Electro Magnetic Compatibility) with the aim to prevent unsafe product situations, the EN60601-1-2 standard has been implemented. This standard defines the levels of immunity to electromagnetic interferences as well as maximum levels of electromagnetic emissions for medical devices.

This medical device manufactured by PRIZMA conforms to this EN60601-1-2 standard for both immunity and emissions.

Nevertheless, special precautions need to be taken, such as:

- Do not use mobile (cellular) telephones or other devices that emit electrical or electromagnetic fields near medical device. This may result in incorrect operation of the device and create potentially unsafe situation. The recommendation is to keep a minimum distance of 7 m. Ensure the operation of the device is correct in case the distance is shorter.

Additional documentation in accordance with EN60601-1-2 is available at PRIZMA head office located as mentioned above in this instruction manual.

Documentation is also available at [www.prizma.rs](http://www.prizma.rs).

## **Electromagnetic emission**

The PRIZSALT+ is intended for use in the electromagnetic environment specified below. The customer or the user of the PRIZSALT+ should assure that it is used in such an environment.

| <b>Emissions test</b>                                     | <b>Compliance</b> | <b>Electromagnetic environment - guidance</b>  |
|---|-------------------|--|
| RF emissions<br>CISPR 11                                  | Group 1           | The PRIZSALT+ 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<br>CISPR 11                                  | Class B           | The PRIZSALT+ 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<br>IEC 61000-3-2                       | Class A           |  |
| Voltage fluctuations / flicker emissions<br>IEC 61000-3-3 | Complies          |  |

## ***Electromagnetic immunity***


The PRIZSALT+ is intended for use in the electromagnetic environment specified below. The customer or the user of the PRIZSALT+ should assure that it is used in such an environment.

| <b>Immunity test</b>   | <b>IEC 60601 test level</b>   | <b>Compliance level</b>   | <b>Electromagnetic environment - guidance</b>  |
|--|---|---|--|
| Electrostatic discharge (ESD)<br>IEC 61000-4-2   | ± 6 kV contact<br>± 8 kV air  | ± 6 kV contact<br>± 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<br>IEC 610004-4  | ± 2 kV for power supply lines<br>± 1 kV for input/output lines  | ± 2 kV for power supply lines   | Mains power quality should be that of a typical commercial or hospital environment.  |
| Surge<br>IEC 61000-4-5   | ± 1 kV line(s) to line(s)<br>± 2 kV line(s) to earth  | ± 1 kV differential mode<br>± 2 kV common mode  | 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<br>IEC 61000-4-11 | <5 % UT<br>(>95 % dip in UT)<br>for 0.5 cycle<br><br>40 % UT<br>(60 % dip in UT)<br>for 5 cycles<br><br>70 % UT<br>(30 % dip in UT)<br>for 25 cycles<br><br><5 % UT<br>(>95 % dip in UT)<br>for 5 sec | <5 % UT<br>(>95 % dip in UT)<br>for 0.5 cycle<br><br>40 % UT<br>(60 % dip in UT)<br>for 5 cycles<br><br>70 % UT<br>(30 % dip in UT)<br>for 25 cycles<br><br><5 % UT<br>(>95 % dip in UT)<br>for 5 sec | Mains power quality should be that of a typical commercial or hospital environment. If the user of the PRIZSALT+ requires continued operation during power mains interruptions, it is recommended that the PRIZSALT+ is powered from an uninterruptible power supply or battery. |
| Power frequency (50/60 Hz) magnetic field<br>IEC 61000-4-8   | 3 A/m   | 3 A/m   | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.  |

NOTE UT is the a.c. mains voltage prior to application of the test level.

## **Guidance and manufacturer's declaration - electromagnetic immunity**

The PRIZSALT+ is intended for use in the electromagnetic environment specified below. The customer or the user of the PRIZSALT+ should assure that it is used in such an environment.

| <b>Immunity test</b>          | <b>IEC 60601 test level</b> | <b>Compliance level</b> | <b>Electromagnetic environment - guidance</b>   |
|-------------------------------|-----------------------------|-------------------------|---|
| Conducted RF<br>IEC 61000-4-6 | 3 Vrms<br>150 kHz to 80 MHz | 3 V                     | Portable and mobile RF communications equipment should not be used no closer to any part of the PRIZSALT+, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.<br><b>Recommended separation distance</b><br>$d = 1.2\sqrt{P}$   |
| Radiated RF<br>IEC 61000-4-3  | 3 V/m<br>80 MHz to 2.5 GHz  | 3 V/m                   | $d = 1.2\sqrt{P}$ 80 MHz to 800 MHz<br>$d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz<br><br>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 meters (m).<br>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. <sup>b</sup><br>Interference may occur in the vicinity of equipment marked with the following symbol:<br> |

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.

<sup>a</sup> Field strengths from fixed transmitters such as base stations for radio (cellular/cordless) telephones, 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 PRIZSALT+ is used, exceeds the applicable RF compliance level above, the PRIZSALT+ should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the PRIZSALT+.

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strength should be less than 3 V/m.

## ***Recommended separation distances between portable and mobile RF communications equipment and the PRIZSALT+***

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

| Rated maximum output power of transmitter<br>W | Separation distance according to frequency of transmitter<br>m |                                |                                 |
|--|--|--------------------------------|---------------------------------|
|  | 150 kHz to 80 MHz<br>d = 1.2√P                                 | 80 MHz to 800 MHz<br>d = 1.2√P | 800 MHz to 2.5 GHz<br>d = 2.3√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 determined 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 4 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.



## ***Proper disposal of electronic waste (Waste electrical & electronic equipment)***

This marking shown on the product or its labels indicates that it should not be disposed of with other household wastes at the end of its lifespan. To prevent possible damage to environment or human health from an uncontrolled waste disposal, please separate this from other types of waste and recycle it responsibly, to promote the sustainable re-use of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business user should contact their supplier and check the terms and conditions of purchase contract. This product should not be mixed with other commercial waste for disposal.

This product does not contain any hazardous substances.

# Specifications

## Specifications

This device fulfils the provisions of the EC directive 93/42/EEC (Medical Device Directive).

|                                  |  |
|----------------------------------|--|
| Product name                     | : PRIZMA Dry Salt Aerosol Generator  |
| Model                            | : PRIZSALT+  |
| Product class                    | : IIa - according to 93/42/EEC   |
| Power source                     | : 100-240 V ~, 50-60Hz   |
| Power consumption                | : 55 VA  |
| Fuses                            | : Switch: 2 x T2AH250Vac; Dispenser: T0.5AL250V;<br>Grinder: T1AL250V                      |
| Electrical protection class      | : Class I  |
| Electromagnetic emission         | : EN 60601-1-2 compliant   |
| Salt consumption                 | : 0 - 150g/h, adjustable   |
| Air volume                       | : 2 m <sup>3</sup> /min  |
| Salt tank capacity               | : 150g   |
| External dimensions of device    | : 270 (W) x 480 (H) x 260 (D) mm   |
| Net weight                       | : 13,5 kg  |
| Operating conditions             | : 20 to 40°C (68 to 104°F), 15 to 40% RH, 700 to 1060 hPa                                  |
| Storage and transport conditions | : -25 to 70°C (-13 to 158°F), 20 to 93% RH   |
| Accessories included             | : User manual (with warranty), deflector, extender sleeve, brushes (4 pcs) and power cord. |

- Specifications and appearance are subject to change without prior notice

Symbols:



= Warning: read the instruction manual carefully



= Correct disposal of This Product



= Do not open! Session in progress!

DO NOT OPEN  
DURING OPERATION



Manufacturer : PRIZMA Kragujevac d.o.o.  
Kumanovska 8  
34000 Kragujevac, Serbia



EU representative : GRAJSKA VRATA d.o.o  
Šmiklavž 3a,  
3324 Gornji Grad, Slovenia