

OMRON ULTRASONIC NEBULISER

Model **NE-U17**

ULTRA **A-I-R**TM

Instruction Manual

- Thank you very much for purchasing this OMRON Ultrasonic Nebuliser.
- Be sure to read this instruction manual carefully before using the unit so that you can use it safely and correctly.
- Please keep this instruction manual always at hand for future reference.

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Be sure to Read This Section

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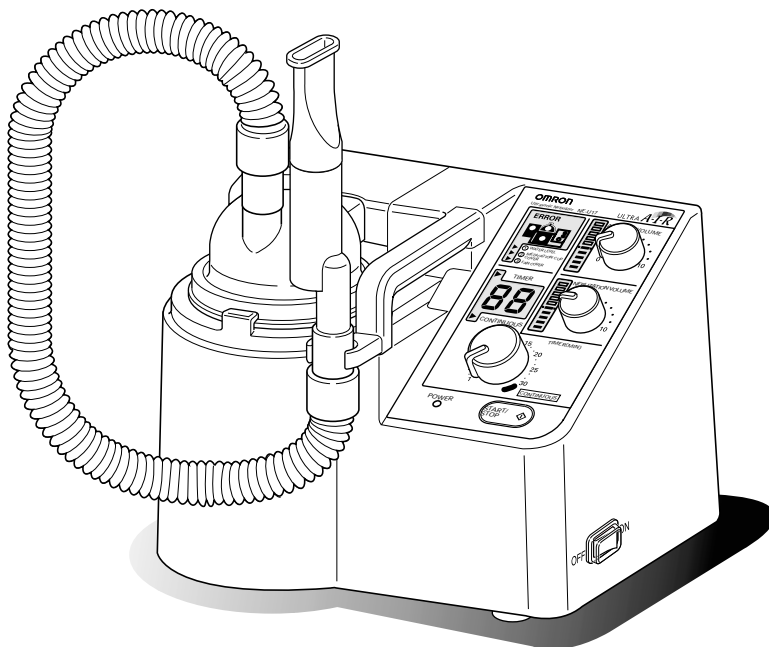
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■ This unit is a medical instrument. Be sure to use the unit properly according to instructions given by medical professionals. Only use medications as prescribed and instructed by your doctor.

Please understand that OMRON is not liable for the following:







1. Occurrence of trouble and/or damage caused by the maintenance and/or repair conducted by other than OMRON or OMRON's authorized dealer.
2. Trouble and/or damage of OMRON's product caused by the product of other manufacturer not delivered by OMRON.
3. Trouble and/or damage caused by the maintenance and/or repair using the repair part(s) not authorized by OMRON.
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 unit 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 supreme forces such as fire, earthquake, flood, or lightning.

1. The contents of this Instruction Manual are subject to change for improvement without prior notice.
2. 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 OMRON representative or dealer.
3. It is prohibited to copy all or a part of this Instruction Manual without getting OMRON's permission. Unless you use this Instruction Manual for your personal (corporate) purpose, you are not allowed to use it without OMRON's permission in accordance with the Copyright Act.

- 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
 Warning	Indicates matters in which the possibility of death or severe bodily injury may arise as a result of incorrect handling.
 Caution	Indicates matters in which bodily 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). Matters involving actual caution are indicated by statements or pictures in or near △.		The pictured icon refers to "caution for flammability".		The pictured icon 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 pictured icon refers to "prohibition to disassemble".		The pictured icon refers to "general prohibition".
The ● icon indicates something that is compulsory (must be observed at any time). Matters involving specific compulsory actions are indicated by statements or pictures shown in or near ●.		The pictured icon refers to "general compulsion".		The pictured icon refers to "unplugging the power plug".

Warning

Only use medications as prescribed and instructed by your doctor.

- Your physical conditions may change for the worse.

When you use the unit for the first time after purchasing it or after having not used it for a long time, be sure to clean and disinfect it. (Refer to Pages 15 to 17.)

- Miscellaneous types of bacteria may propagate and you may get infected.

Clean and disinfect the medication cup, medication cup cover, mouthpiece and inhalation hose, each time the unit is used.

- Miscellaneous bacteria may propagate and you may become infected. If the unit is going to be used by more than one person, prepare a disinfected medication cup, medication cup cover, mouthpiece and inhalation hose, for each person before using it. This will prevent cross-infection.

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 nebuliser please contact your local OMRON service representative (address on/ inside package).



Do not use this device in combination with ventilation equipment.

- * The pressure in the ventilation system may reduce significantly.

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 vibrator while the power plug is plugged into the electric outlet.

- You may suffer electric shock or injure yourself.









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 nebuliser while you are in bath or having a shower, never submerge the nebuliser in water.

- Short circuit may occur in the unit or you may suffer electric shock.



 Caution	
<p>If the nebulisation parts have already become dirty before using the unit, clean them first before use.</p> <ul style="list-style-type: none"> • If the medication remains in the nebulisation unit, your physical conditions may change for the worse. <p>Wash off the remaining medication in the parts thoroughly with water after cleaning these parts with disinfectant.</p> <ul style="list-style-type: none"> • If you inhale with the remaining disinfectant in the parts, your physical conditions may change for the worse. <p>Replace the water in the water tank each time you use the unit.</p> <ul style="list-style-type: none"> • A dirty vibrator may cause lower nebulization rate. <p>If the medication is attached to the fan installation axis, wipe it off.</p> <ul style="list-style-type: none"> • Overheating may cause the motor to stop. <p>Disposal of this product should be carried out in accordance with the national regulations for the disposal of electronic products.</p>	
<p>If you are not going to use the unit for a long time, be sure to unplug the power plug from the electric outlet.</p> <ul style="list-style-type: none"> • You may suffer electric shock or the unit may ignite due to electric leakage. <p>Be sure to turn off the power and unplug the power plug from the electric outlet when you install, or remove the device, or take care of the parts.</p> <ul style="list-style-type: none"> • You may suffer electric shock or injure yourself. 	
<p>Do not look into the nebulization section during nebulization.</p> <ul style="list-style-type: none"> • A large amount of medication may get into your eyes and cause injury. <p>Do not operate the unit when the medication cup is empty.</p> <ul style="list-style-type: none"> • The unit may become overheated or damaged. <p>Do not fill the water tank with the liquid other than water (tap water or distilled water).</p> <ul style="list-style-type: none"> • The vibrator will deteriorate and may be damaged. <p>When parts are sterilised in an autoclave, make sure these parts do not directly contact the heater inside the autoclave.</p> <p>* As the temperature of the heater is very high, these parts may be melted or deformed.</p> <p>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.</p> <ul style="list-style-type: none"> • You may suffer electric shock or the unit may be shorted or ignite. <p>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.</p> <ul style="list-style-type: none"> • You may suffer electric shock or the unit may ignite due to short circuit because of deteriorated insulation. 	
<p>Do not disassemble, repair, or modify the unit.</p> <ul style="list-style-type: none"> • The unit may malfunction or cause injury. <p>Contact your nearest OMRON service representative.</p>	
<p>Do not use a power cord other than the supplied one.</p> <ul style="list-style-type: none"> • The unit may ignite or you may suffer electric shock. <p>Be sure to use the power source as specified on the device.</p> <ul style="list-style-type: none"> • The unit may ignite or you may suffer electric shock. <p>Do not share the electric outlet with other electric appliances.</p> <ul style="list-style-type: none"> • The unit may ignite or you may suffer electric shock. <p>To unplug the power plug from the electric outlet, do not pull the power cord, instead hold the power plug with your hand.</p> <ul style="list-style-type: none"> • The power cord may be broken or short-circuited and cause fire or you may suffer electric shock. 	

General Advice

- Do not use the unit for the purpose other than for inhalation.
- Do not use any parts other than the accessories or the optional parts listed on page 21.
- Do not fill the medication cup with more than 150 ml medication or less than 5 ml.
 - The unit may not nebulize.
- Do not move the unit while medication remains in the unit.
- Do not block the air ventilation holes at the rear side of the nebuliser.
- Place the nebuliser on a plain and stable surface during operation.
- Do not apply strong shocks to or drop the main unit.
- Do not bend the inhalation hose.
 - The medication may be pooled in the hose and the nebulization rate may be lowered.
- Do not inhale from the inhalation hose if the main unit is higher than your head.
 - The medication may spill onto your face or clothes.
- Be careful not to damage the vibrator 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 dried.
- Do not wipe the main unit with volatile chemicals, such as benzine or thinners.
- Although this nebuliser 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 unit.

Maintenance

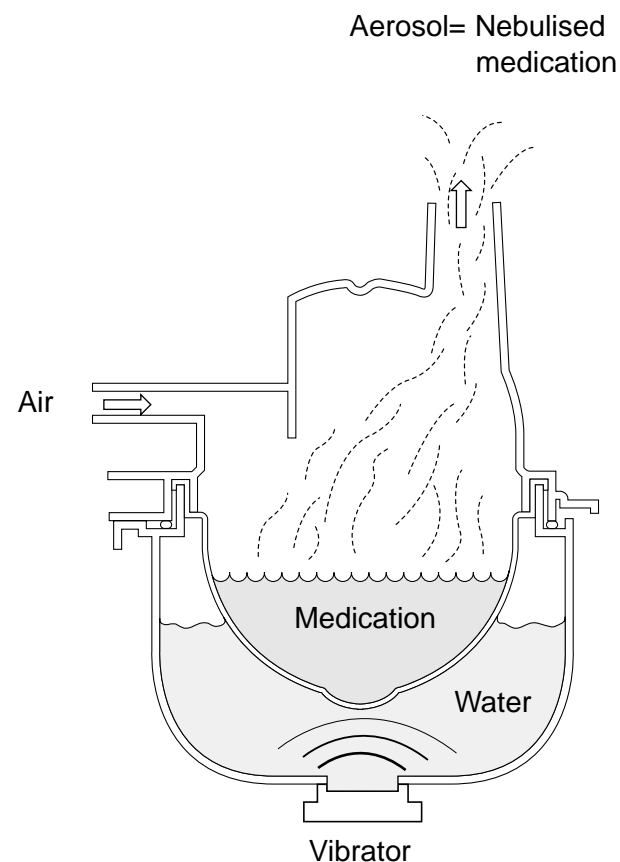
Before using the unit, be sure to confirm that the main unit operates normally and safely.

How to handle faults or accidents

- If an equipment error (E1) occurs, immediately take the following measures. (Also refer to Page 19.)
- (1) Power-off the unit and unplug the power plug from the electric outlet to make the unit inoperable.
 - (2) Write "Faulty-Do not use" on the main unit so that it will not be used.
 - (3) Contact the store where you purchased the unit or the nearest OMRON dealer.

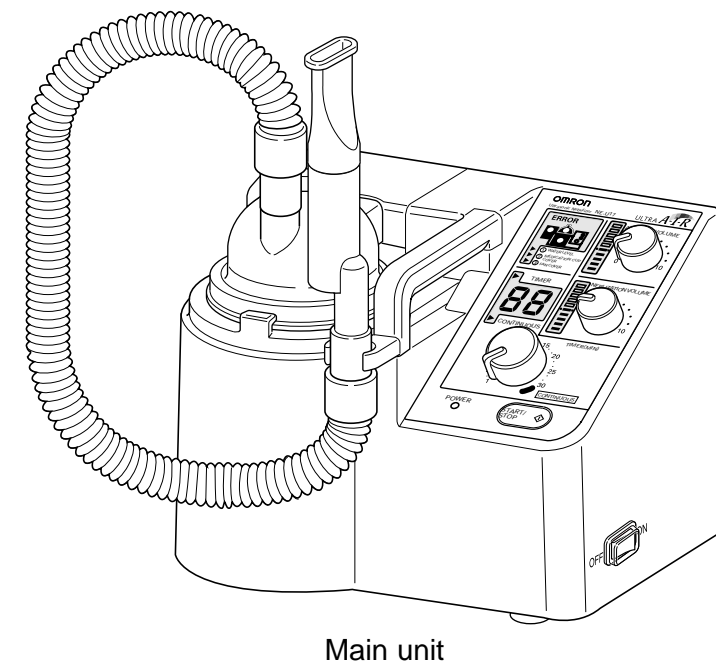
About the principle of nebulisation in the NE-U17

- ① The NE-U17 transmits the energy of ultrasonic vibration from the vibrator located at the bottom of the water tank into water.
 - ② The ultrasonic vibration is transmitted to the medication in the medication cup through the water in the water tank.
 - ③ The ultrasonic vibration emits medication from the medication cup (like a fountain) and this is dispersed as aerosol.
 - ④ Air from the fan carries this nebulised medication out of the medication cup.
- Nebulisation: The state in which the medication is converted into aerosol.

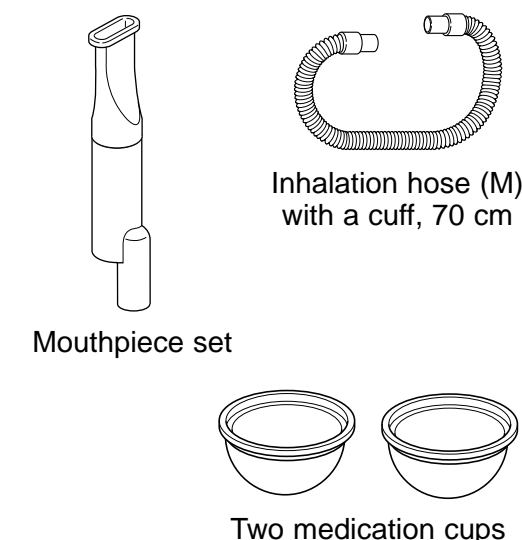


Features of the Product

- 1 Easy to see large LCD displays air volume, nebulisation rate, set time, remaining time, continuous time, and error location. The back-light illumination featured in the unit enables checking of the display in the dark.
- 2 The unit can nebulise for 72 hours continuously (with the use of the optional long-time nebulisation set and the supply medication set).
- 3 The unit has a notification buzzer. The buzzer sounds when an error occurs or the time set by the timer is completed.
- 4 With the use of a dial, the air volume, nebulisation rate, and time can be set easily and quickly. The unit can handle various inhalation therapies with the use of various optional parts.



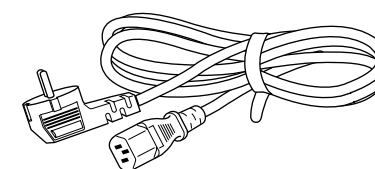
Main unit



Mouthpiece set

Inhalation hose (M) with a cuff, 70 cm

Two medication cups

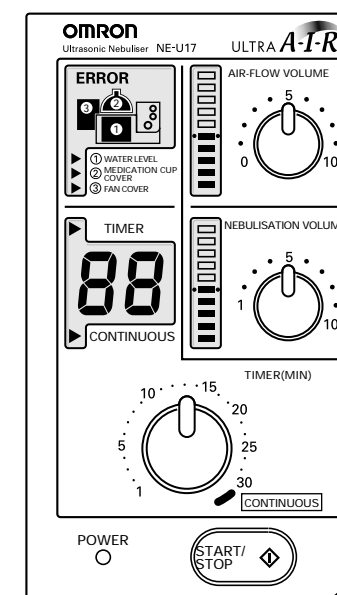


Power cord
– As the unit is a Class I electroshock protection type, be sure to use only the supplied power cord with an “earth”.

■ Instruction manual (with warranty card)

For the optional parts, refer to the “List of Optional Parts” on Page 21.

Explanation of the LCD Display



Display of air volume:

The “air volume” is displayed in 11 levels.

Display of nebulisation rate:

The “nebulisation rate” is displayed in 10 levels.

When the timer is used:

A timer mark ► illuminates and the buzzer beeps to notify the end time.

For continuous operation:

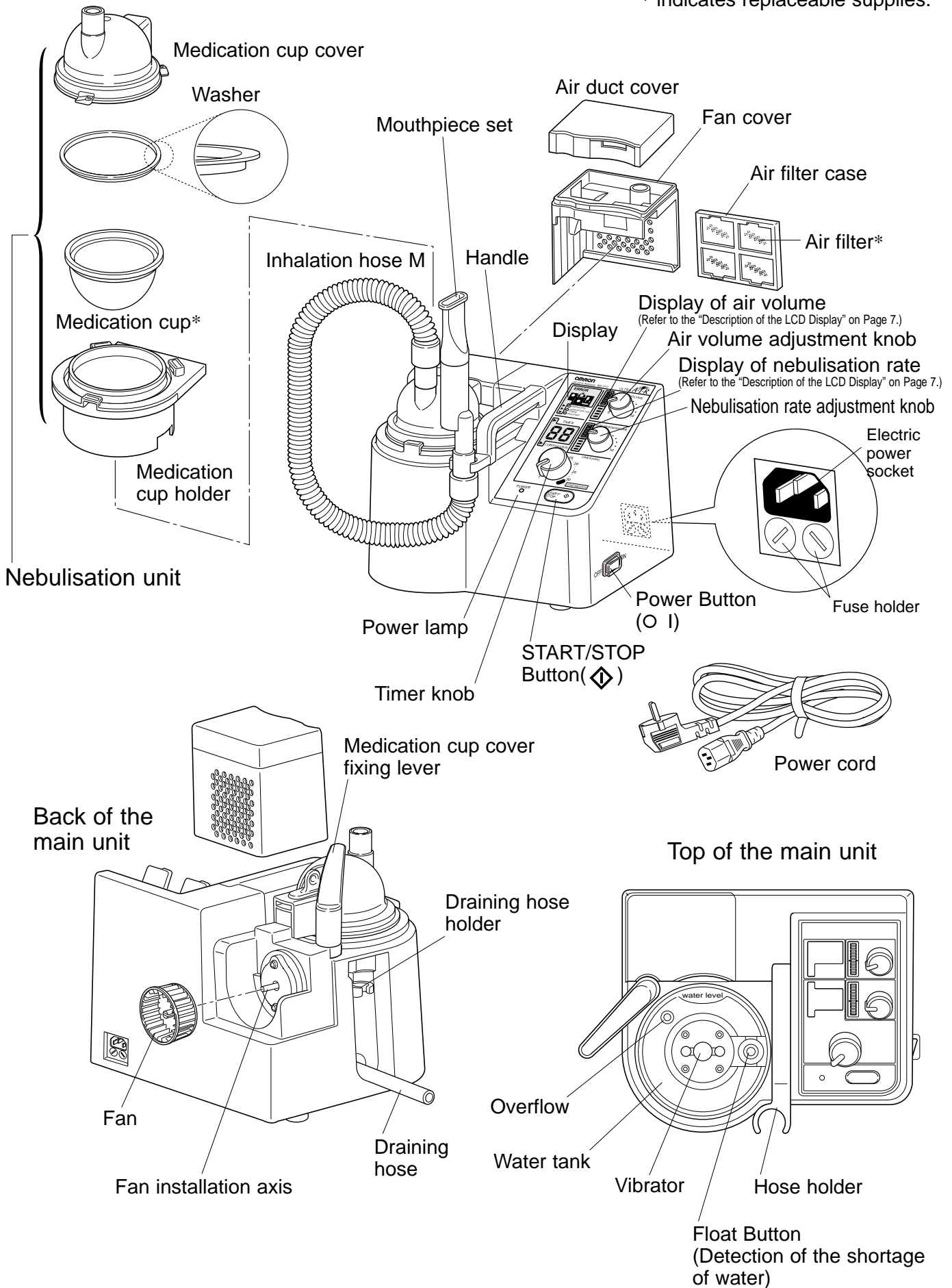
A continuous operation mark ► illuminates and the digital display indicates this.

ERROR display

When the water level in the water tank is too low or the medication cup cover or the fan cover is not installed, the corresponding error location is indicated at the upper left corner of the panel.
(For the error display, refer to Page 19.)

Names of the Parts

* indicates replaceable supplies.



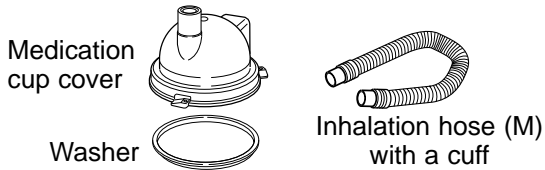
How to Prepare before Inhalation

—Clean the parts before starting the inhalation.

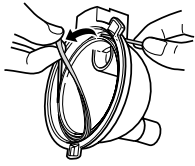
[Parts that can be disinfected by boiling]

(For the disinfecting method, refer to Page 17.)

Submerge these parts in a container filled with sufficient water and boil for 10 minutes.

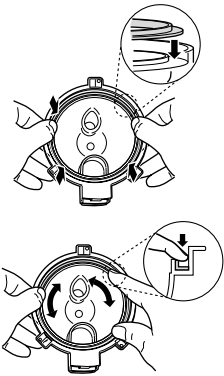


How to remove the washer



How to remove the washer
Place the medication cup cover on its side and insert a small item (such as a paper clip) into the hole of the cover. Pinch and remove the washer gently.

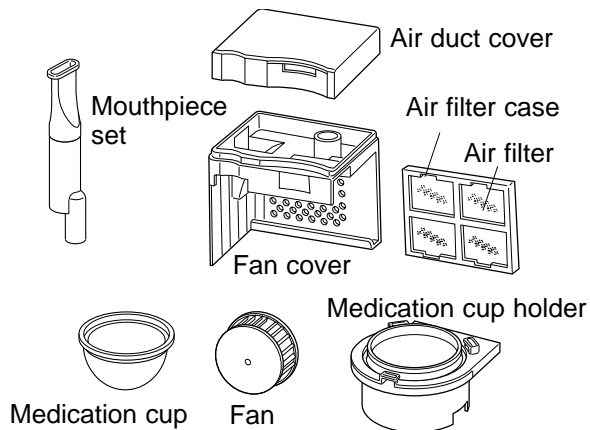
How to attach the washer



How to attach the washer
Hold the medication cup cover and place the washer securely with your fingertips as illustrated in the figures on the left. Make sure the washer is placed flat and not upside down.

[Parts that cannot be disinfected by boiling]

(For the care and disinfection, refer to Page 17.)



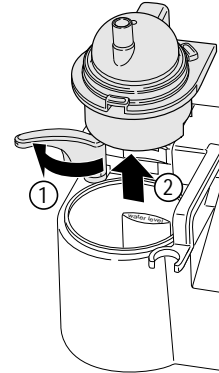
Warning

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.



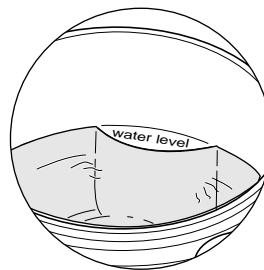
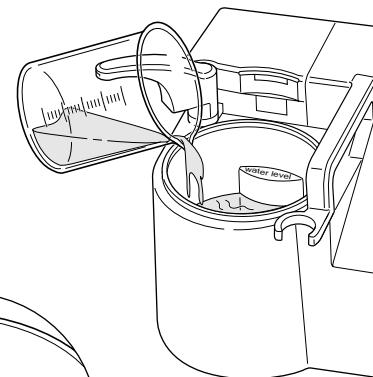
1 Filling the cooling water.

1) Remove the nebulization section by rotating the medication cup cover-fixing lever clockwise.



2) Fill the cooling water.

Fill the cooling water up to the water level mark that specifies the water level in the water tank. The proper amount is approximately 375 ml.



—If the water level in the water tank is lower than the water level mark, a lower water level in water tank error will be displayed.

—If the water temperature in the water tank is low, the nebulisation rate may drop. (Recommended temperature is approximately 26°C (78.8 °F).)

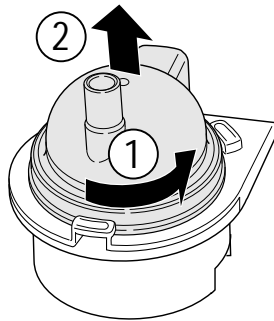
—Replace water in the water tank each time the unit is used.

—When the unit is used for a long time continuously, replace water at least every twenty-four hours.

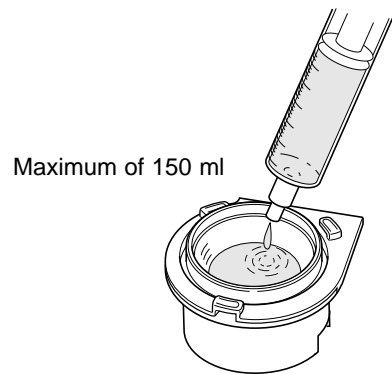
(For continuous use or long periods, refer to Page 13.)

2 Filling medication into the medication cup.

1) Remove the medication cup cover by rotating it counterclockwise.



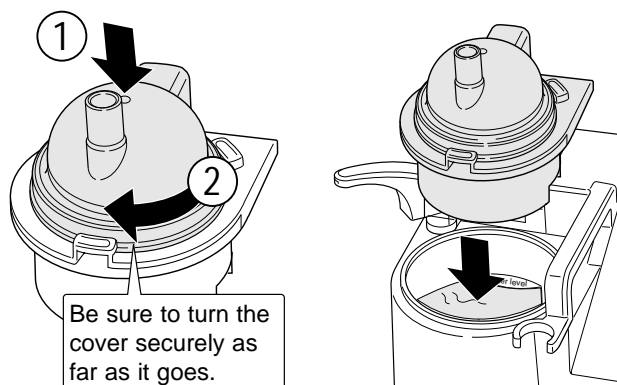
2) Fill medication into the medication cup.



Maximum of 150 ml

Minimum of 5 ml.

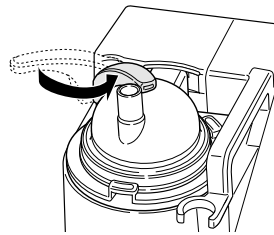
3) Assemble the medication cup cover by turning it clockwise, then install it to the main unit.



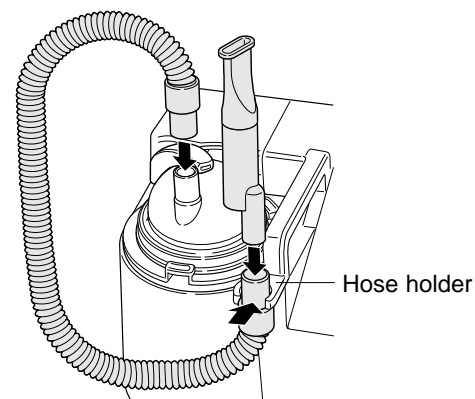
Be sure to turn the cover securely as far as it goes.

3 Assembling and attaching the nebulisation unit to the main unit

1) Fix the nebulisation unit by rotating the medication cup cover-fixing lever counterclockwise.

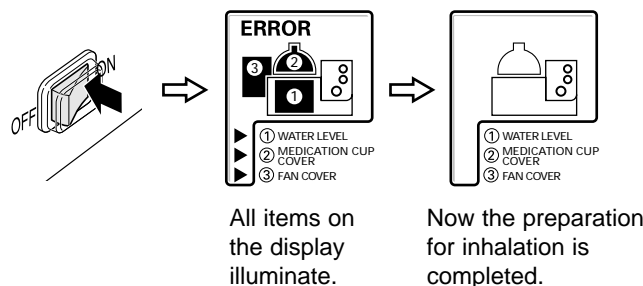


2) Attach the inhalation hose and the mouthpiece set.



3) Turn on the Power Button (O I). After all items on the LCD display illuminate, check that the "ERROR display" does not flash.

If the "ERROR display" flashes, check the place where the error number is indicated by referring to Page 19.



Note: As soon as the Power Button (O I) is turned on, the fan to cool the parts inside the main unit will start rotating. This is normal.

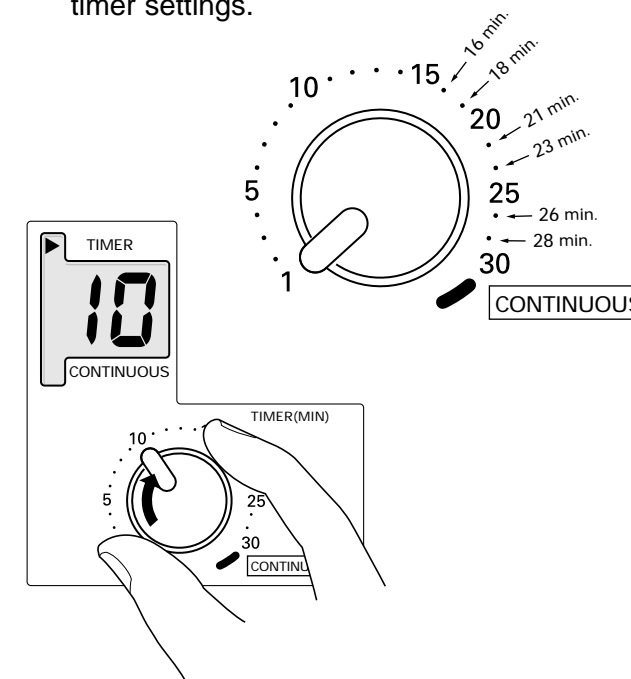
1 Setting the inhalation time.

Setting the inhalation time by rotating the timer knob clockwise.

1) To set the timer

The timer can be adjusted by 1 minute when setting the time up to 15 minutes.

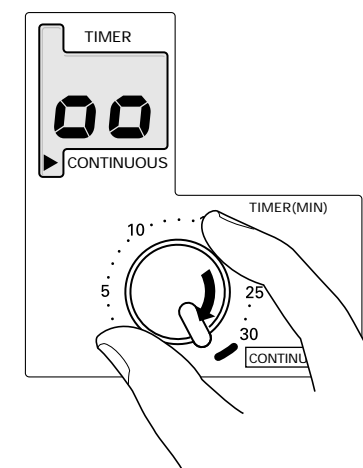
Please note that the timer has intervals of 1 or 2 minutes between 15 and 30 minute timer settings.



2) Continuous nebulisation

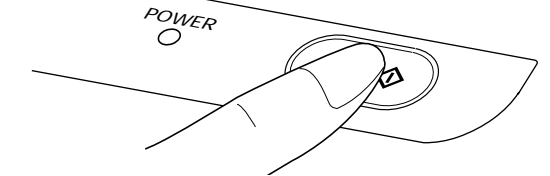
Turn the timer knob clockwise to the position of "continuous".

The display of "Continuous" on the timer will turn on and the digital characters will rotate to indicate that the unit is in the continuous operation.



2 Push the START/STOP Button (O I).

The fan will rotate and the unit starts to nebulise.



When the timer is used:

The display counts down by 1 minute.

To change the setting during the operation:

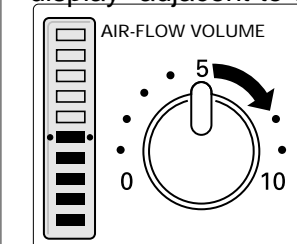
Turn the timer knob to the desired time. The timer is reset and the unit starts to operate.

Adjust the air volume and the nebulisation rate.

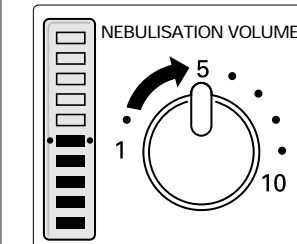
Adjust the air-flow volume and the nebulisation rate with the "air volume" knob and the "nebulisation volume" adjustment knob" while observing the aerosol coming out from the inhalation hose.

– For inhalation using the accessories such as mouthpiece, adjust the air volume and the nebulisation rate according to your preferences and the accessories being used.

The air volume (11 levels) and the nebulisation rate (10 levels) can be checked by the "level display" adjacent to each knob.



The air-flow volume adjusts the volume of air sent through the medication cup cover.

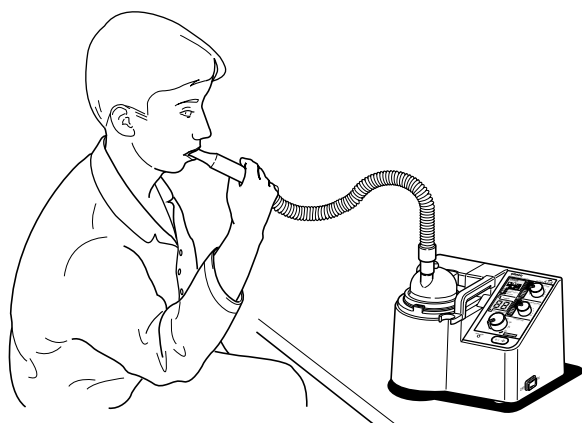


The nebulisation volume adjusts the rate of aerosol released from the medication.

– Depending on the type of the medication, nebulised aerosol may not come out constantly.
 – Medication with high viscosity and surface tension may have a lower nebulisation rate.
 – When the unit starts to operate with the medication volume of 150 ml and the air volume and the nebulisation rate at level "10", it nebulises intermittently.
 In this case, adjust the nebulisation rate by the nebulisation rate adjustment knob.

3 Inhaling the aerosol.

<Example of correct use>

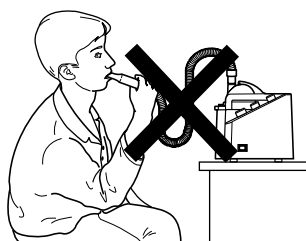


You can use an optional inhalation mask instead of a mouthpiece.

Wrong examples of use:

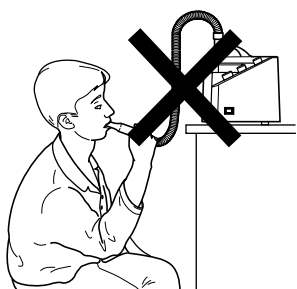
Do not bend the inhalation hose or block the nozzle.

- The medication will be pooled in the hose and the nebulization rate may be lowered.



Do not use the unit if the main unit is higher than your head.

- The medication may splash onto your face or clothes.



In the following cases, the buzzer sounds and the unit stops operation.

- When the time set by the timer is completed
- When the medication cup cover is removed during inhalation
- When the amount of water in the water tank is far from sufficient
- When the fan cover is removed

In case the buzzer sounds due to an error, the error display flashes. Push the START/STOP Button (◊), then the buzzer will stop.

In this case, check the error display and inspect the unit by referring to Page 19.

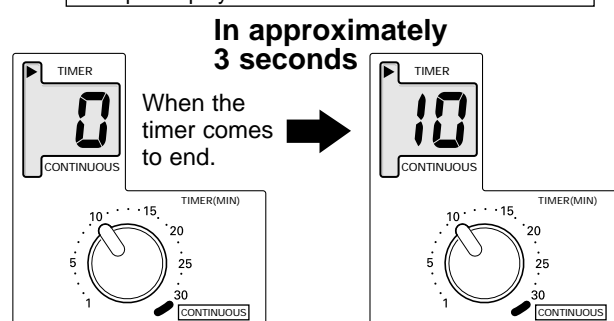
4 Finishing the treatment.

When the timer is used:

The buzzer sound notifies the completion of time set by the timer and the unit stops operation.

When the operation ends, "0" on the display illuminates and the display changes to the initial set time.

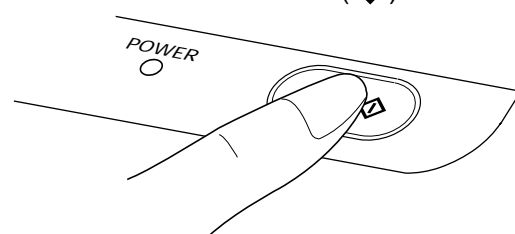
Sample display when the timer is set to 10 minutes.



To terminate inhalation while using the timer, push the START/STOP Button (◊), then the unit stops operation.

At this time, the remaining time is reset and the timer returns to the initial set time.

To start inhalation again, push the START/STOP Button (◊).



Caution: In case the treatment is paused by pressing START/STOP button, be sure to re-enter the remaining time, before the treatment is resumed.

To terminate the inhalation during the continuous operation, push the START/STOP Button (◊), then the unit stops operation.

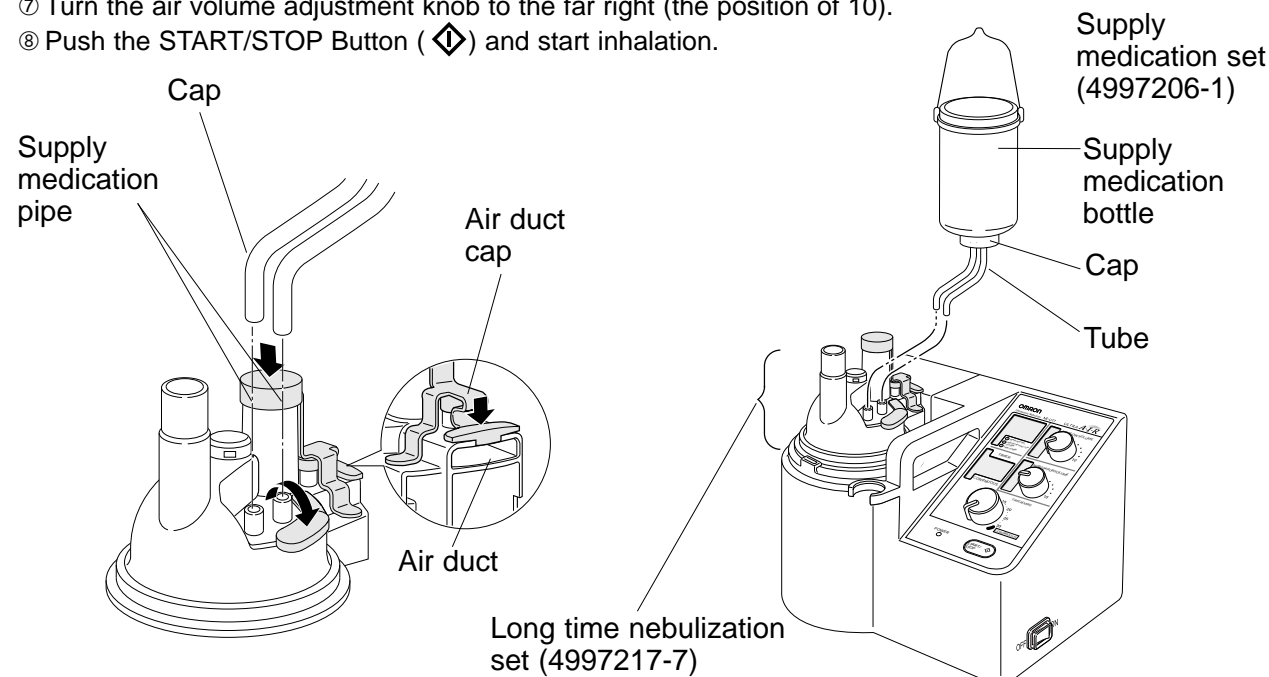
To start the inhalation again, push the START/STOP Button (◊), then the unit will start continuous operation.

When the inhalation is finished, turn off the power and unplug the power cord from the electric outlet.

1 Using the unit for a long time

By using the optional "long time nebulization set (4997217-7)" and the "supply medication set (4997206-1)", the unit can nebulise continuously for a long time.

- ① Remove the medication cup cover of the main unit. Attach an optional long time nebulization set in place of the medication cup cover and assemble the unit according to the procedure shown on Page 10. At this time, check that the air duct is not blocked by the air duct cap.
- ② Fill medication into the supply medication bottle.
- ③ Tightly close the supply medication bottle cap. At this time, check that the washer is correctly set inside the cap.
- ④ Remove the cap of the supply medication pipe of the long time nebulization set and attach the tube of the supply medication set.
- ⑤ Hang the supply medication bottle on a proper place, higher than the device. At this time, check that the tube is not bent. If the tube is bent, the medication cannot be supplied. If the tube is too long, cut it to a proper length. Attach the inhalation hose.
- ⑥ Set the timer to "Continuous".
- ⑦ Turn the air volume adjustment knob to the far right (the position of 10).
- ⑧ Push the START/STOP Button (◊) and start inhalation.

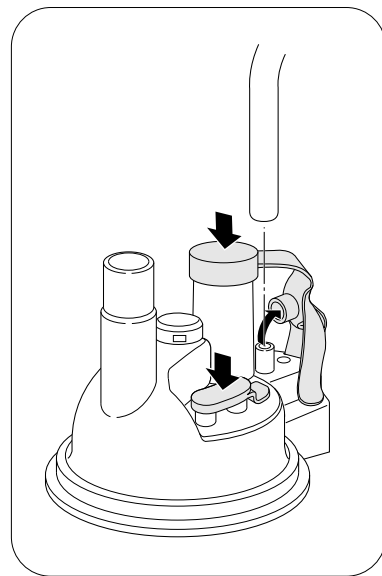


2 Using the unit for (oxygen) humidification

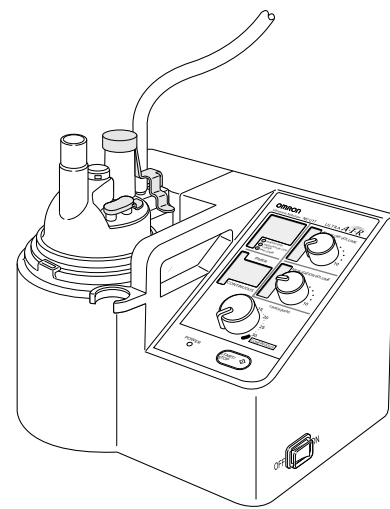
If you use the unit for humidification in combination with oxygen therapy, connect the equipment to the oxygen supply pipe of the "long time nebulisation set" (optional, 4997217-7). Please refer to the illustration on the next page.

In order to stop the air from the fan on the main unit during the oxygen therapy, set the "air-flow volume" adjustment knob to "0", and attach an air duct cap to the air duct of the long time nebulisation set.

The operating and inhalation methods are the same as those of the normal operation.



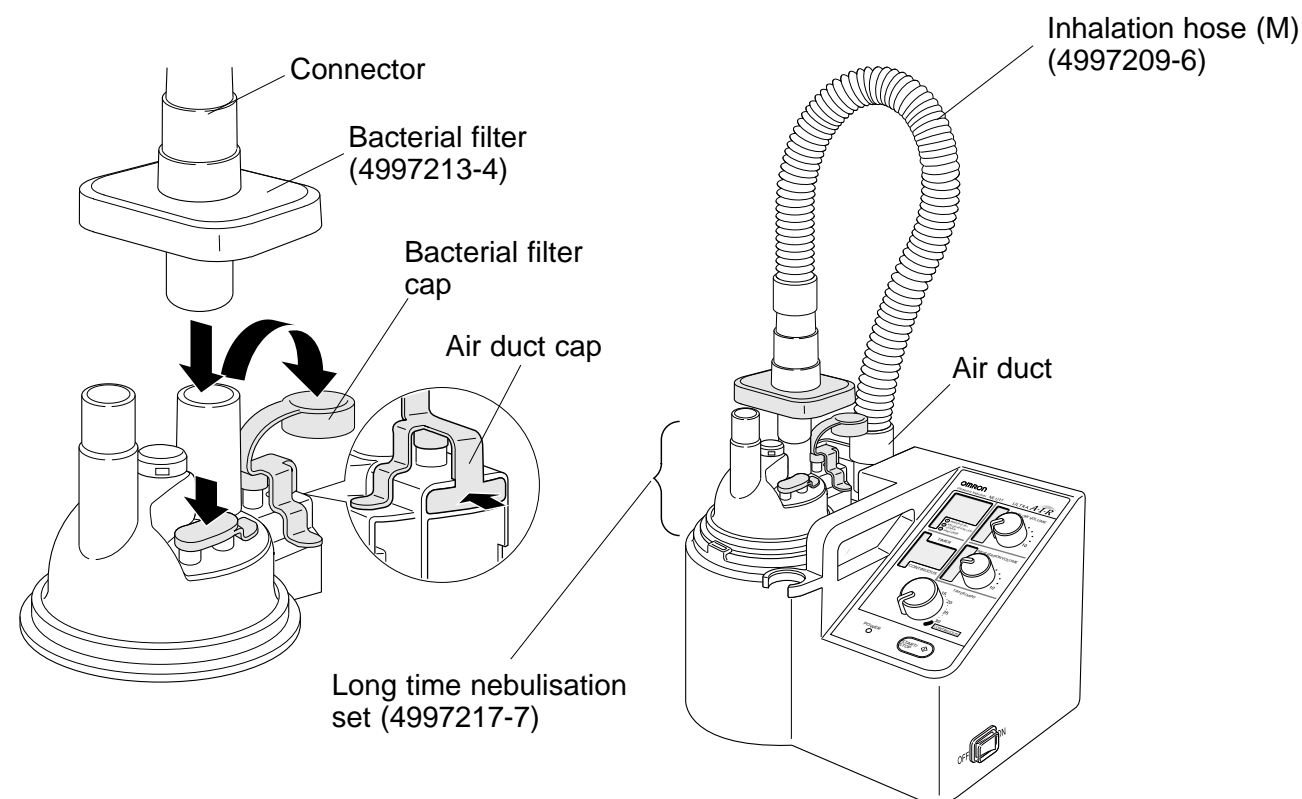
Oxygen supply pipe



3 Using a bacterial filter

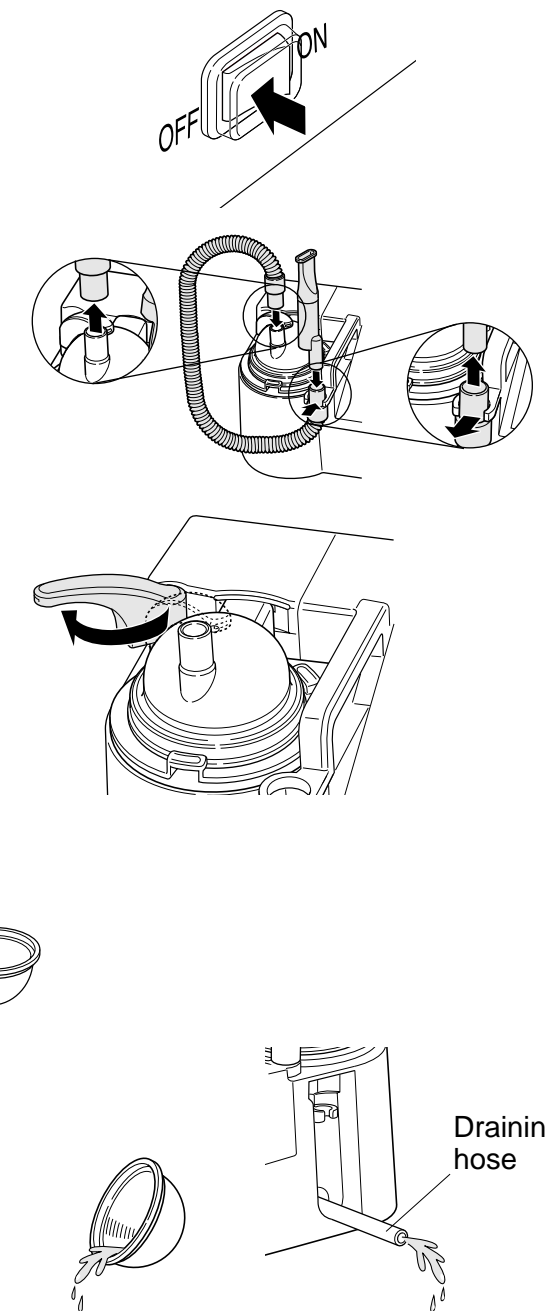
Having passed through a bacterial filter, the filtered air can be supplied to the inside of the long time nebulization set.

- ① Remove the medication cup cover and assemble the long time nebulisation set with the main unit.
To assemble, use the long time nebulisation set in place of the medication cup cover by following the procedure shown on Page 10. At this time, close the air duct with the air duct cap.
 - ② Remove the air duct cover from the main unit.
 - ③ Remove the bacterial filter cap of the long time nebulisation set.
 - ④ Attach a bacterial filter to the long time nebulisation set.
 - ⑤ Attach a connector to the bacterial filter.
 - ⑥ Attach the inhalation hose to the connector and connect the other end of the hose to the air duct of the fan cover.
- When using the bacterial filter, set the “air volume adjustment knob” to “10”.



How to Take Care of the Parts

- 1 Turn off the power by pushing the ON/OFF Button (○ I), and unplug the power plug from the electric outlet.
- 2 Remove the mouthpiece set, or inhalation mask.
- 3 Rotate the medication cup cover-fixing lever clockwise.
- 4 Remove the nebulisation unit for disassembling.
- 5 Discard the remaining medication.
Discard the cooling water in the water tank by using the draining hose.
- 6 Clean and disinfect the parts.
 - Wipe the inside of the water tank by using alcohol.
 - Clean, disinfect, and immediately dry the medication cup cover, medication cup holder, medication cup, inhalation hose, mouthpiece set. (For the disinfection method, refer to Page 17.)



Warning

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 to the vibrator while the power plug is plugged into the electric outlet.
• You may suffer electric shock or injure yourself.



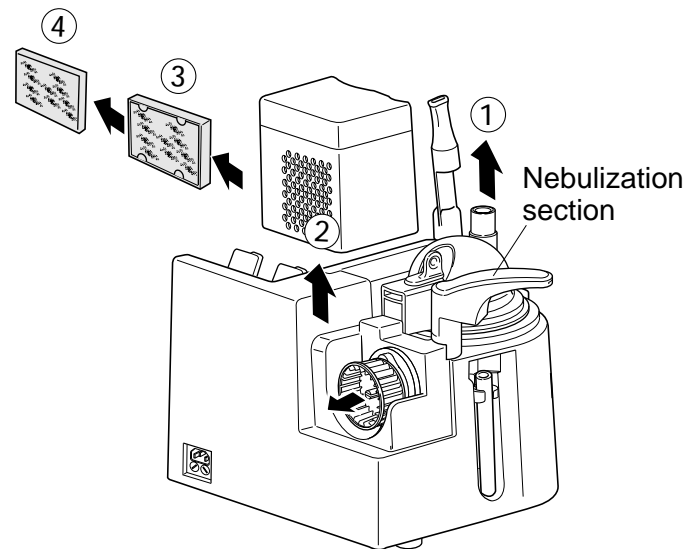
How to Take Care of the Unit

How to Take Care of the Air Filter

Replace the air filter when it becomes dirty.

- ① Remove the nebulisation unit from the main device.
- ② Remove the fan cover by lifting it up.
- ③ Remove the air filter case from inside the fan cover.
- ④ Remove the air filter from the air filter case to replace with a new one.

Assemble the above mentioned parts in the reverse order.



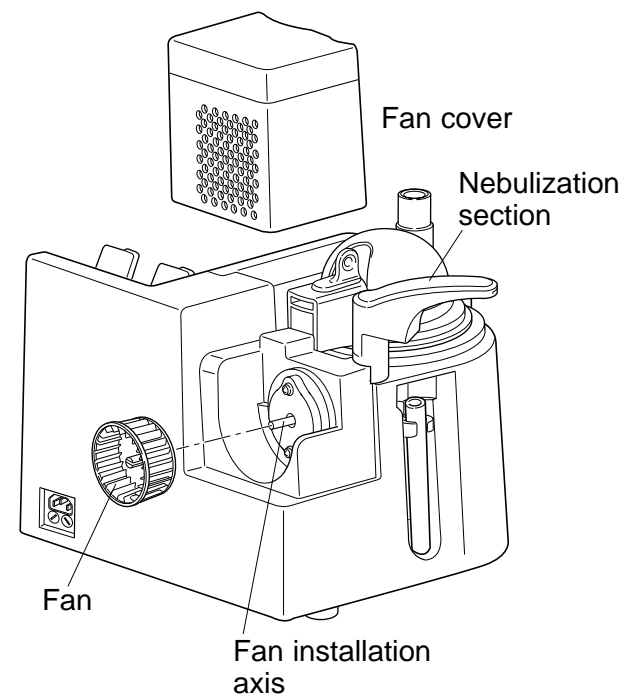
How to Take Care of the Fan

Open the fan cover and remove the fan. Clean the fan by washing it with water or detergent.

– If the medication is stuck to the fan installation axis, remove the medication.

Remove the fan cover by lifting it up after removing the nebulisation unit from the main device. The dirty fan cover can be washed with water or detergent.

In order to install the fan, position the fan to the fan installation axis securely as far as it goes.



How to Take Care of the Main Unit

Clean the dust on the main unit by wiping it with a lightly squeezed cloth after being moistened with water or alcohol.

After draining water from the water tank of the main unit through the draining hose, wipe off the leftover water with a clean and dry cloth.

General Advice

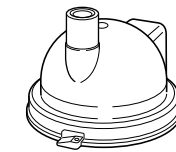
- Do not wipe the main unit with volatile chemicals, such as benzene or thinners.
- Do not damage the surface of the vibrator.

How to Disinfect the Unit

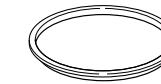
How to Disinfect the Unit

Disinfection by boiling cannot be done to some parts. They may become deformed.

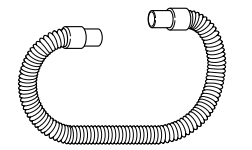
[Parts that can be disinfected by boiling]



Medication cup cover

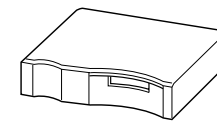


Washer

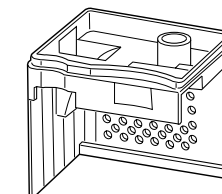


Inhalation hose (M) with a cuff, 70 cm

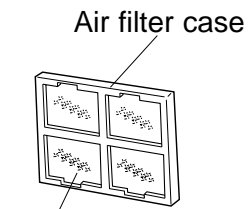
[Parts that cannot be disinfected by boiling]



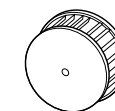
Air duct cover



Fan cover



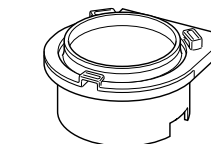
Air filter



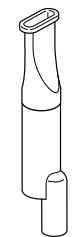
Fan



Medication cup



Medication cup holder



Mouthpiece set

Disinfection by disinfectant

Different disinfectants have different anti-bacterial actions. For sterilization and disinfection, follow the instruction manual and the notes on each disinfectant.

The time to immerse the parts in the disinfectant differs with the type of the disinfectant used. However, 30 to 60 minutes or longer is common.

After immersing the parts, wash them sufficiently with water and dry promptly. Carefully store the parts so that they are not re-infected.

If a colored disinfectant solution such as Hibitane is used, some parts may be discolored with repeated use. However, it does not affect the nebulising properties.

[Typical disinfectants that can be used]

- Disinfecting ethanol
- Glutaraldehyde: Sterihyde (0.5%) (and other equivalent products)
- Sodium hypochlorite: Milton (0.1%), Purax (0.1%) (and other equivalent products)
- Beenzalkonium chloride: Osvan (0.1%)
- Chlorhexidine: Hibitane (0.5%), Maskin (0.5%)
- Amphoteric surfactant: Tego (0.2%) (and other equivalent products)

Note: These products cannot be used for the air filter.

Warning

Be sure to immediately dry the cleaned and disinfected parts, then store them in order to prevent them from getting contaminated in the future.

- Miscellaneous types of bacteria may propagate and you may get infected.

Do not wash the main unit with water, or splash water to the power source.

- Electric leakage may occur in the unit or you may suffer electric shock.



Sterilization with ethylene oxide gas (E.O.G.)

Observe the Instruction Manual of the sterilizer and consult with the manufacturer of the E.O.G. sterilizer for the details.

Some of the rubber and plastic parts of the nebuliser may have residual ethylene oxide gas. After sterilization, consult with the manufacturer of the sterilizer and provide sufficient aeration until the safe level to human beings can be obtained.

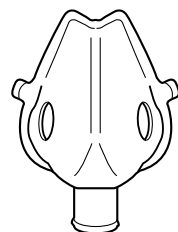
The equipment and the parts to be sterilized by E.O.G. must be sufficiently dried in advance.

Wash and dry the parts, then conduct the E.O.G. sterilization.

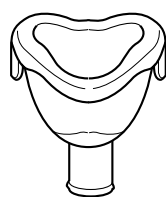
Sterilization by autoclave

Refer to the Instruction Manual and the Notes on Handling of the sterilizer.

[Option parts that can be sterilized by autoclave]



Inhalation mask (L)
(4997205-3)



Inhalation mask (S)
(4997207-0)

⚠ Caution

When parts are sterilised in an autoclave, make sure these parts do not directly contact the heater inside the autoclave.

* As the temperature of the heater is very high, these parts may be melted or deformed.



How to store the unit

Store the parts after thoroughly drying them.

When storing the parts, be careful for the infection.

Do not store the unit under direct sunlight, where temperature and humidity are high, in a dusty place, where they can be easily sprayed with water, or where vibration or shock can be easily applied.

Trouble	Where to Inspect	How to Correct
The power lamp does not illuminate.	Is the power plug securely plugged into the electric outlet?	Plug the power plug in the electric outlet correctly. (Refer to Page 10.)
The unit does not nebulise.	Is ① of ERROR display flashing due to insufficient amount of water in the operating chamber?	Fill the water up to the specified water level mark in the operating chamber. (Refer to Page 9.)
	Is the medication cup correctly set to the main unit?	Set the medication cup correctly. (Refer to Page 10.)
	Is the fan cover open?	Close the fan cover correctly.
	Is the fan set?	Set the fan properly.
	Is the amount of medication in the medication cup too much?	Reduce the amount of medication to less than 150 ml. (Refer to Page 10.)
The nebulisation rate is low.	Is the inhalation hose bent and the medication pooled in the hose?	Adjust the bent hose correctly and drain the pooled medication. (Refer to Page 12.)
	Is the amount of medication in the medication cup too small?	Increase the amount of medication to more than 5 ml.
	Is the lower portion of medication cup damaged or deformed?	Replace the medication cup with a new one.
	Is the amount of medication in the medication cup much?	Reduce the amount of medication to less than 150 ml. (Refer to Page 10.)
The nebulisation power is lowered.	Is the value of nebulisation rate adjustment knob or the air volume adjustment knob set too low?	Turn the knob to the right and adjust the value. (Refer to Page 11.)
	Is the room temperature and/or water temperature too low?	Operate the unit without medication for about 4 minutes, then use the unit.
	Is the medication cup dirty?	After cleaning the medication cup with the detergent, wash off the detergent sufficiently under running water before using the cup.
Nebulisation is unstable.	Is the amount of medication exceeding 150 ml?	Reduce the amount of medication to less than 150 ml. (Refer to Page 10.)
	Are the air volume and the nebulisation rate set to the maximum level when the amount of medication is 150 ml?	Adjust the nebulisation rate. (Refer to Page 11.)

Trouble	Where to Inspect	How to Correct
	① flashes.	The water level in the operating chamber has been lowered. Fill in the water up to the water level of the operating chamber.
	② flashes.	The medication cup cover is open. Securely close the medication cup cover.
	③ flashes.	The fan cover is open. Securely close the fan cover.
	E1 is displayed.	The fan inside the main unit has stopped. Contact the nearest OMRON dealer.

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

Technical data

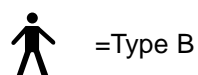
This device fulfils the provisions of the EC directive 93/42/EEC (Medical Device Directive).

Product name	: Omron Ultrasonic Nebulizer
Model	: NE-U17
Power source	: 230 VAC, 50 Hz
Power consumption	: Approximately 80 VA
fuse	: T2A L250V
Ultrasonic frequency	: Approximately 1.7 MHz
Nebulization rate*	: 0 - 3 ml/ minute or more
Particle size	: Approximately 1 to 8 µm (80% of the particle distribution), MMAD= 4.7 µm
Air volume	: Maximum of 17 l/min
Amount of cooling water	: Approximately 375 ml
Capacity of medication cup	: Approximately 150 ml (min. 5 ml)
External dimensions	: Approximately 276 (W) x 243 (H) x 226 (D)
Weight of the main unit	: Approximately 4.0 kg
Operating conditions	: 5°C to 40°C (41°F to 73.4°F), 30 to 85% RH
Accessories included	: Inhalation hose M (70 cm with a cuff), mouthpiece set, 2 medication cups, power cord, instruction manual (with warranty card)

* May change depending on the type of medication.

– Specifications and appearance is subject to change without prior notice for.

Symbols:



=Type B

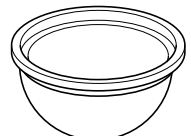
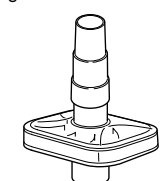
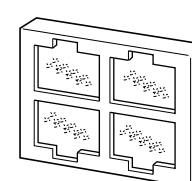
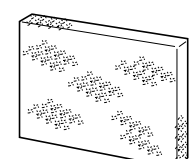

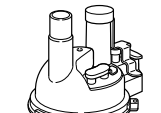
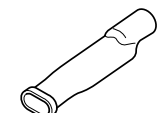
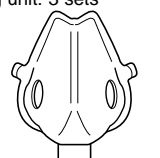
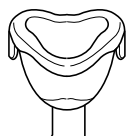
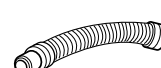
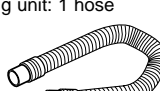

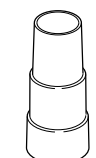
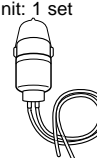


=Warning: read the instruction manual carefully

CE 0197

Manufacturer : OMRON Matsusaka Co., Ltd. Japan

EU representative : OMRON Healthcare Europe
Kruisweg 577
NL-2132 NA Hoofddorp

<p>Medication cup (4997211-8) Used to transmit the ultrasonic vibration. (If it has any damage or deformation, the unit may not be able to nebulize. Handle this part carefully.) Material: PP Packaging unit: 5 cups</p> 	<p>Bacterial filter (4997213-4) Used for inhalation such as for tracheal lavage. Materials: filter; PP, connector; PMP Packaging unit: 1 filter + 1 adapter</p> 	<p>Air filter set (4997214-2) Protects the unit from the dust in air. Materials: case; PP, filter; PS Packaging unit: 1 set</p> 	<p>Air filter (4997215-0) Material: PS Packaging unit: 5 filters</p> 
<p>Nebulization set (4997216-9) Used for normal nebulization. Materials: medication cup; PP, medication cup holder; ABS, medication cup cover; PMP, packing; silicone Packaging unit: 1 set</p> 	<p>Long time nebulization set (4997217-7) Used for continuous nebulization. To be used in combination with the supply medication set (4997206-1). Materials: cover; PMP, cap; silicone Packaging unit: 1 set (20/22mm, ISO compatible)</p> 	<p>Mouthpiece set (4997212-6) Used for inhalation by being held by the mouth. Material: EVA Packaging unit: 5 sets</p> 	<p>Inhalation mask (L) set (4997205-3) Attached with the fixing rubber string. Enables the simultaneous inhalation by mouth and nose. Material: SEBS Packaging unit: 3 sets</p> 
<p>Inhalation mask (S) set (4997207-0) Attached with the fixing rubber string. Exclusive for the inhalation by mouth. A size that can be used by an infant. Material: SEBS Packaging unit: 3 sets</p> 	<p>Inhalation hose S (30 cm) with a cuff having the diameter of 20 mm (4997208-8) White hose guide tube (cuff) can be removed and installed. Attach it to the hose by rotating clockwise. Cut it to the proper length. Material: SEBS Packaging unit: 1 hose</p> 	<p>Inhalation hose M (70 cm) with a cuff having the diameter of 20 mm (4997209-6) White hose guide tube (cuff) can be removed and installed. Attach it to the hose by rotating clockwise. Cut it to the proper length. Material: SEBS Packaging unit: 1 hose</p> 	<p>Inhalation hose L (150 cm) with a cuff having the diameter of 20 mm (4997210-0) White hose guide tube (cuff) can be removed and installed. Attach it to the hose by rotating clockwise. Cut it to the proper length. Material: SEBS Packaging unit: 1 hose</p> 
<p>Adapter (4997218-5) Material: pmp Used for connecting 22 mm parts e.g. bacterial filter.</p> 	<p>Supply medication set (4997206-1) Supplies the medication in order to keep the medication in the medication cup at a certain level. Used for humidifying or inhalation for a long time. Material: PP Packaging unit: 1 set</p> 	<p>– Materials are indicated by abbreviations.</p> <p>ABS : Acrylonitrile-butadiene-ethylene resin EVA : Ethylene vinyl acetic acid resin PMP : Polymethyl pentane PP : Polypropylene resin PS : Polyethylene resin SEBS : Styrene elastomer</p>	