

OMRON®

**MICROAir®**  
Vibrating Mesh Nebulizer  
**RE-U110**  
**Instruction Manual**

**For single patient use only**



**Rx ONLY**

3292315-6A

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# Introduction

Thank you for purchasing the OMRON® MICROAir® RE-U110.

OMRON Healthcare has advanced electronic nebulizer technology with the introduction of the MICROAir RE-U110. Focusing on patient convenience and medication compliance as its goal, this device offers easy portability paired with a revolutionary mesh technology that provides a precise, powerful and effective yet nearly silent treatment.

## Safety Instructions

This instruction manual provides you with important information about the OMRON RE-U110. To ensure the safe and proper use of this device, READ and UNDERSTAND all of these instructions. **If you do not understand these instructions or have any questions, contact 1-800-634-4350 before attempting to use this device. For specific information about your own respiratory health, consult with your physician.**

## Intended Use

The Omron RE-U110 is an ultrasonic (vibrating mesh) nebulizer system designed to aerosolize liquid medications for inhalation by the patient. The device may be used with pediatric and adult patients in the home, hospital, and sub-acute care settings.

It is not intended for use with Pentamidine.

## Receiving and Inspection

Remove this device from the packaging and inspect for damage. If this device is damaged, DO NOT USE and contact 1-800-634-4350.

## Symbols Glossary

For symbol information, visit: [OmronHealthcare.com/symbols-glossary](http://OmronHealthcare.com/symbols-glossary)

# Important Safety Instructions

**Read the Important Safety Information in this instruction manual before using this device.**

Follow this instruction manual thoroughly for your safety.

Keep for future reference. For specific information about your own device, CONSULT WITH YOUR PHYSICIAN.

## **Warning**

**Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

- Failure to properly clean the MICROAir components may cause bacterial growth, serious illness from contamination, and compromised medication delivery.
- For type, dose, and regimen of medication, follow the instructions of your physician and/or licensed healthcare practitioner.
- DO NOT use Pentamidine with this device.
- If you experience any allergic reactions or other difficulties during use, stop using this device immediately and consult with your physician.
- Keep this device out of the reach of unsupervised infants, toddlers and children. This device contains small parts that may cause a choking hazard if swallowed by infants, toddlers or children.
- ALWAYS dispose of any remaining medication after use. ALWAYS use fresh medication for each treatment.
- DO NOT use this device on persons who are unconscious or not breathing on their own.
- DO NOT use only water in the nebulizer for inhalation purposes.
- DO NOT touch the vibrating element while the power is on.
- DO NOT use this device where it may be exposed to flammable gas or vapors.
- DO NOT use or store this device in humid locations such as a bathroom.
- DO NOT leave this device or its parts in locations that are exposed to extreme temperature or humidity changes such as in a vehicle or in direct sunlight.
- DO NOT use in anesthetic or ventilator breathing circuits.
- Clean the parts of this device before using this device for the first time, and also when the device has not been used for an extended period of time.
- Clean the parts of this device after each use.
- After cleaning, allow the parts to dry before reassembling. To avoid contamination, store the device and parts in a clean and safe location.
- DO NOT immerse the main unit (except the vibrating element and the area around the vibrating element) or the AC adapter in water or other liquid.
- DO NOT spill water or other liquids, including medications, on the main unit or the AC adapter.
- DO NOT leave the cleaning solution on the parts. Rinse the parts with clean tap water after cleaning.
- Store this device and the components in a clean, safe location.

## **Data Transmission**

- This product emits radio frequencies (RF) in the 2.4 GHz band. Turn off the Bluetooth® feature in this device when in RF restricted areas, such as on an aircraft or in hospitals. For further information on potential restrictions refer to documentation on the Bluetooth usage by the FCC.

## **AC Adapter Handling and Usage**

- DO NOT use the AC adapter if this device or the AC adapter cable is damaged. If this device or the cable is damaged, turn off the power and unplug the AC adapter immediately.
- Plug the AC adapter into the appropriate voltage outlet. DO NOT use in a multi-outlet plug.
- NEVER plug in or unplug the AC adapter from the electric outlet with wet hands.
- DO NOT disassemble or attempt to repair the AC adapter.

## **Rechargeable Battery Handling and Usage**

- DO NOT dispose of the battery in a fire.
- DO NOT crush or puncture the main unit or battery because it may cause spontaneous flames.
- DO NOT disassemble or modify the main unit or battery.
- DO NOT recharge, use, or leave the battery in any high temperature environment such as in a location near a fire or in direct sunlight. Doing so may cause the battery to overheat, ignite or rupture.
- The device contains a built-in rechargeable Lithium-Ion battery which must be disposed of properly. Dispose of the device according to applicable local government regulations.



### Caution

**Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient, or cause damage to the equipment or other property.**

- Use this device under the guidance of qualified medical experts.
- This device is intended for human use only.
- Provide close supervision when this device is used by, on, or near children or invalids.
- To avoid medication residue on your face, wipe your face after removing the mask.
- DO NOT get nebulized medication in your eyes.
- DO NOT operate this device if the medication container is empty.
- Use ONLY OMRON authorized parts and accessories (refer to section 6). Parts and accessories not approved for use with this device may damage the unit.
- DO NOT add more than 10 ml of medication to the medication container.
- DO NOT subject the device to any strong shocks such as dropping the device on the floor.
- DO NOT cover the main unit with items such as a blanket or towel during use.
- DO NOT block the air opening in the medication container during nebulization.
- DO NOT disassemble or attempt to repair the main unit or AC adapter.
- DO NOT push or poke at the mesh with items such as a cotton swab or pin.
- While using this device, make sure that no mobile device or any other electrical devices that emit electromagnetic fields is within 12 inches (30 cm) of this device. This may result in incorrect operation of the device.
- Inspect the main unit and the parts before each use to ensure that parts are not damaged, the device is assembled properly and it is operating normally.
- To prevent damage to the device, add the medication slowly. DO NOT allow the medication to overflow the medication container.
- To prevent damage to the device, make sure that the mesh cap is correctly in place. If the mesh cap is not properly closed, medication will leak out of the device.
- Operate the device only as intended. DO NOT use the device for any other purpose.
- Changes or modifications not approved by OMRON Healthcare will void the user warranty.
- Dry the parts by air drying only. DO NOT use any equipment to dry the device parts.
- To prevent damage to the device, DO NOT immerse the main unit in any liquid, DO NOT wash or rinse any of the parts under strong running water, and DO NOT touch the mesh with your hand or any object.
- To prevent damage to the device, DO NOT carry or leave the medication container filled with medication or distilled water.
- DO NOT use household bleach to clean the device or parts; doing so will cause rust and damage the mesh cap.
- To prevent damage to the device, DO NOT clean the main unit using abrasive cleaners or any type of chemical.

- NEVER clean with benzene or thinner.
- NEVER use a microwave oven to boil or dry parts.
- NEVER use a hair dryer to dry parts.
- NEVER use a dishwasher to wash or dry parts.
- Ensure that this device has acclimated to room temperature before nebulizing the medication.
- Nebulizing the medication after an extreme temperature change could lead to less nebulization. OMRON recommends waiting for approximately 2 hours for the device to warm up or cool down when the device is used at an environment within the temperature specified as operating conditions after it is stored either at the maximum or at the minimum storage temperature. For additional information of operating and storage/transport temperature, refer to section 7.
- DO NOT use this device in places with high or low humidity or high or low temperatures. Refer to section 7.

## **AC Adapter Handling and Usage**

- Fully insert the AC adapter into the outlet. DO NOT use an extension cord.
- When unplugging the AC adapter from the outlet, be sure to safely pull from the AC adapter. DO NOT pull from the AC adapter cable.
- When handling the AC adapter cable:
  - DO NOT damage it.
  - DO NOT break it.
  - DO NOT tamper with it.
  - DO NOT forcibly bend or pull it.
  - DO NOT twist it.
  - DO NOT use it if it is gathered in a bundle.
  - DO NOT pinch it.
  - DO NOT place it under heavy objects.
- Wipe any dust off of the AC adapter.
- Unplug the AC adapter when not in use.
- Unplug the AC adapter before cleaning this device.
- Use ONLY the AC adapter designed by OMRON for this device (refer to section 6 for optional medical accessories). Use of any other AC adapter may damage the device.

## **Rechargeable Battery Handling and Usage**

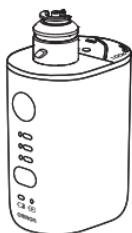
- DO NOT charge the battery when the AC adapter is wet.
- Recharge the battery periodically.

# 1. Know Your Device

## 1.1 Contents

The following items are contained in the package:

Main Unit



Medication Container



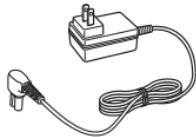
Mesh Cap



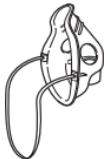
Mouthpiece



AC Adapter



Child Mask (PVC)



Storage Case



Instruction Manual

App Installation Guide

Cleaning Instructions

## 1.2 Names and Functions of the Parts

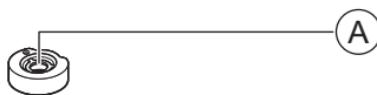
### How the Mesh Nebulizer Works

Energy from the ultrasonic vibrating element is transmitted to the medication in the medication container.

Aerosol is generated by pushing liquid medication through fine holes in the mesh.

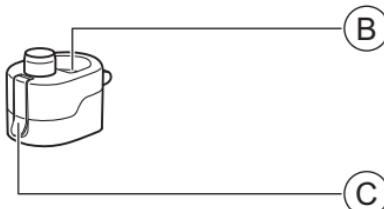
#### Mesh Cap

Contains metal alloy mesh for nebulization.



<b>Mesh</b>
<b>A</b> Nebulized medication exits here through fine holes.

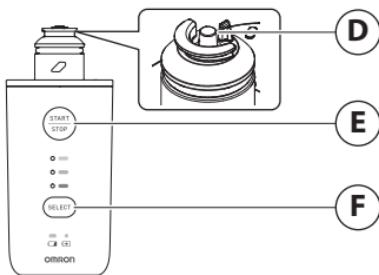
#### Medication Container



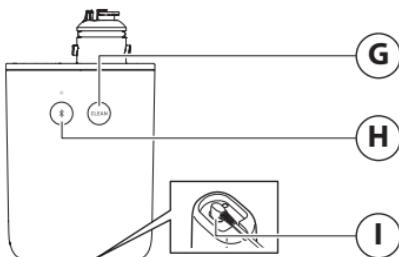
<b>Air Opening</b>
<b>B</b> Stabilizes nebulization.
<b>Hook</b>
<b>C</b> Used to open the medication container.

## 1. Know Your Device

### Main Unit

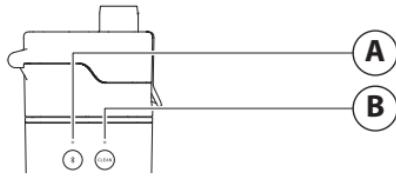


<b>D</b>	<b>Vibrating Element</b> The tip of this vibrating element oscillates at high frequency and pushes the medication through the pores of the mesh.
<b>E</b>	<b>[START/STOP] Button</b> Press to start nebulization. Press again to stop nebulization.
<b>F</b>	<b>[SELECT] Button</b> Press to switch the medication indicator according to the medication.

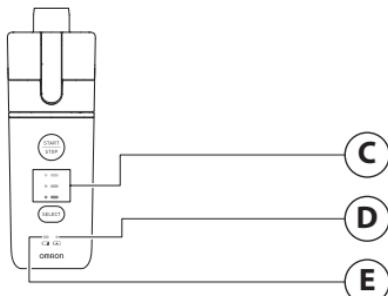


<b>G</b>	<b>[CLEAN] Button</b> Press to start the clean mode.
<b>H</b>	<b>[Connection] Button</b> Press to start communication with your smart device.
<b>I</b>	<b>AC Adapter Jack</b> Connect the AC adapter plug here.

## 1.3 Indicator Functions



<b>A</b>	<b>Connection Indicator</b> Is lit or flashes according to the communication status.
<b>B</b>	<b>Clean Indicator</b> Is lit while in clean mode.



<b>C</b>	<b>Medication Indicators</b> One of the light flashes when the [SELECT] button is pressed. The selected indicator will light while the device is nebulizing.
<b>D</b>	<b>Charging Indicator</b> Is lit while charging and turns off when charging is complete. Flashes when a charging error occurs.
<b>E</b>	<b>Battery Indicator</b> Flashes when the battery is low. Is lit when the battery is depleted.

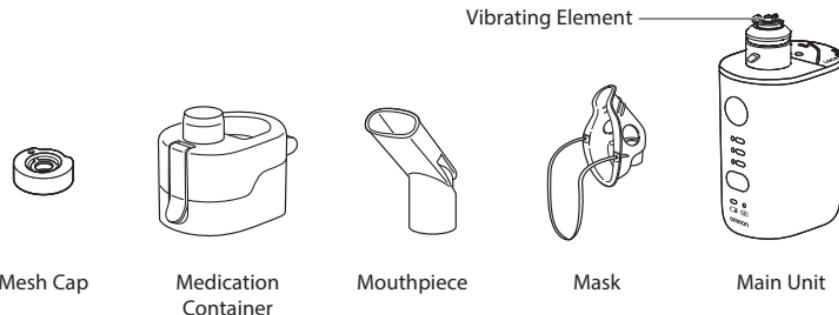
## 2. Preparation

### 2.1 Before Using the Product for the First Time

#### ⚠ Warning

- Failure to properly clean the MICROAir components may cause bacterial growth, serious illness from contamination, and compromised medication delivery.
- Clean the parts of this device before using this device for the first time, and also when the device has not been used for an extended period of time.

**Before first use:** Disassemble the parts and clean the mesh cap, medication container, mouthpiece, mask and vibrating element and its surrounding surface.



## 2.2 Cleaning the Device Before First Use

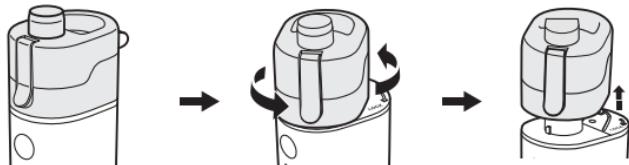
### 1 Disassemble the medication container.

The medication container is installed on the product at the factory. Remove the medication container first to clean the parts.

Disassemble the medication container from the main unit by rotating counter-clockwise and pulling-up.

#### Note

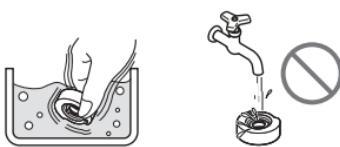
- Before disassembling, always discard the medication or water if any.



### 2 Wash the parts.

#### Mesh Cap

Wash the mesh cap in mild (neutral) detergent, then rinse off with distilled water. Remove excess water and allow to air dry in a clean place.  
Do not wash under running water.



### **Medication Container, Mouthpiece and Mask**

Wash the medication container, mouthpiece and mask in distilled water and mild (neutral) detergent.

Rinse the medication container, mouthpiece and mask thoroughly with distilled water and allow to air dry in a clean place.

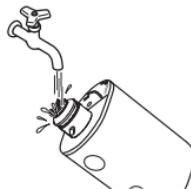


#### **Note**

- Remove the elastic band from the mask before cleaning.

### **Vibrating Element and its Surrounding Surface**

Wash under running tap water.



#### **Note**

- Protect the AC adapter jack so that it does not get wet.

### **Main Unit**

Clean the main unit by wiping it off with a (moistened) lint-free cloth.

Use a dry lint-free cloth to wipe the main unit dry.



#### **Caution**

- NEVER clean with benzene or thinner.

## **3 Dry the parts.**

After cleaning, wipe off water with a dry lint-free cloth, and let them dry completely in a clean place.

## 2.3 Charging the Device Before First Use

We recommend charging the battery to a full 100 % charge. Once fully charged, the battery will last for approximately 3 hours or more per charge, depending on use and storage condition. It takes about 6 hours to fully charge once the battery is empty.

### **Warning**

- **DO NOT use the AC adapter if this device or the AC adapter cable is damaged. If this device or the cable is damaged, turn off the power and unplug the AC adapter immediately.**
- **Plug the AC adapter into the appropriate voltage outlet. DO NOT use in a multi-outlet plug.**
- **NEVER plug in or unplug the AC adapter from the electric outlet with wet hands.**

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### **Caution**

- **Fully insert the AC adapter into the outlet. DO NOT use an extension cord.**
- **When unplugging the AC adapter from the outlet, be sure to safely pull from the AC adapter. DO NOT pull from the AC adapter cable.**
- **When handling the AC adapter cable:**
  - **DO NOT damage it.**
  - **DO NOT break it.**
  - **DO NOT tamper with it.**
  - **DO NOT forcibly bend or pull it.**
  - **DO NOT twist it.**
  - **DO NOT use it if it is gathered in a bundle.**
  - **DO NOT pinch it.**
  - **DO NOT place it under heavy objects.**
- **Wipe any dust off of the AC adapter.**
- **Unplug the AC adapter when not in use.**
- **Unplug the AC adapter before cleaning this device.**
- **Use ONLY the AC adapter designed by OMRON for this device (refer to section 6 for optional medical accessories). Use of any other AC adapter may damage the device.**

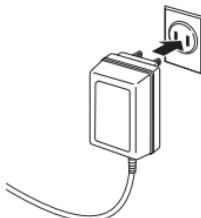
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**1 Insert the AC adapter plug into the AC adapter jack of your device.**



**2 Plug the AC adapter into an electrical outlet.**

The charging indicator will light up. When charging is complete, the charging indicator will turn off.



**3 When the charging indicator turns off, unplug the AC adapter.**

Unplug the AC adapter from the electrical outlet and then remove the AC adapter plug from the device.

**Note**

- Do not place the device in a location where it is difficult to disconnect the AC adapter.
- If your device has not been used for 3 months, recharge it. Do not charge the battery in environments where there is high heat or cold temperatures.
- The battery life will eventually get shorter due to recharging the device repeatedly. When the battery life becomes extremely short, it is coming to the end of its service life. For disposal information, refer to section 7.
- Temperature during the battery charging should be 50 to 104 °F (10 to 35 °C).
- When a charging error occurs, the charging indicator will flash. When it happens, refer to section 5.

## 2.4 Pairing with Your Smart Device

- 1 Enable the Bluetooth on your smart device.**
- 2 Scan the code to the right with your smart device camera or visit [OmronHealthcare.com/app](http://OmronHealthcare.com/app) to find the OMRON compatible app for this product.**
- 3 Download the app, open it on your smart device and follow the pairing and set-up instructions.**



Make sure that your device is within 7 ft. (2 m) of your smart device.

### Note

- Press the  [Connection] button until the connection indicator flashes (approx. 2 seconds).
- Do not press and hold the  [Connection] button for more than 10 seconds. Such operation will disable the Bluetooth function (refer to sub-section 4.2).
- The connection indicator flashes while pairing. When completed, the connection indicator will be lit for 10 seconds.
- If a pairing error occurs, the connection indicator will flash for 10 seconds as the illustration shown below. If it happens, try the pairing operation again.
- Be aware that OMRON will not be responsible for the loss of data and/or information in the app.
- Only 1 smart device can be paired with this device.



Pairing is in process: Flashes continuously

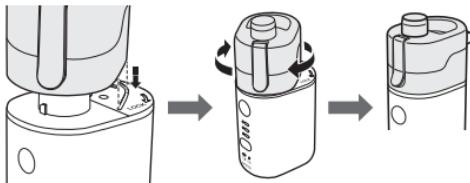


Pairing error occurred: Flashes intermittently

## 2.5 Assembling the Device

### 1 Install the medication container.

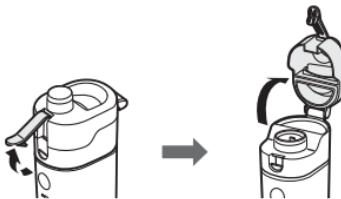
Align the medication container with the guide on the main unit. Then rotate the medication container clockwise.



#### Note

- Do not assemble the medication container to the main unit when the mesh cap is installed.

### 2 Disengage the hook on the medication container, then open the medication container.



### 3 Fill the medication container.

The maximum capacity is 10 ml.

#### Warning

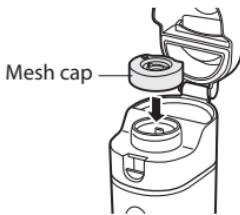
- DO NOT use Pentamidine with this device.
- DO NOT use only water in the nebulizer for inhalation purposes.



#### Caution

- DO NOT add more than 10 ml of medication to the medication container.
- To prevent damage to the device, add the medication slowly. DO NOT allow the medication to overflow the medication container.

#### 4 Place the mesh cap on the medication container.



##### Note

- Do not touch the mesh.

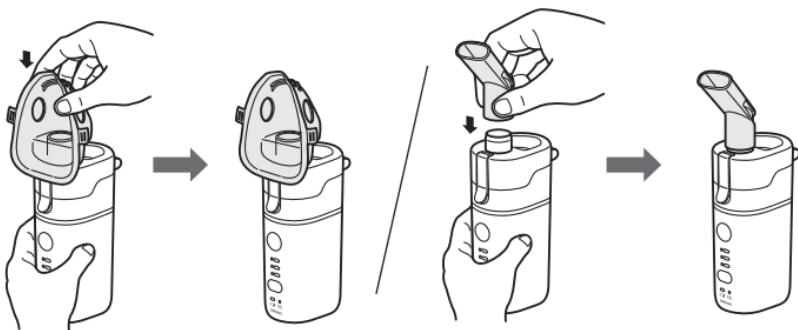


#### 5 Close the medication container, then press on the hook to engage.

If it is not closed securely, the medication may spill out or not be nebulized.



**6 Attach the mask or mouthpiece on the medication container.**



The device is now ready for use.

### 3. Using Your Device

#### 3.1 Starting Inhalation

See "How to use the RE-U110" section in the app for details.

##### **Warning**

- For type, dose, and regimen of medication, follow the instructions of your physician and/or licensed healthcare practitioner.
- **ALWAYS** dispose of any remaining medication after use. **ALWAYS** use fresh medication for each treatment.
- Keep this device out of the reach of unsupervised infants, toddlers and children. This device contains small parts that may cause a choking hazard if swallowed by infants, toddlers or children.

##### **Caution**

- Inspect the main unit and the parts before each use to ensure that parts are not damaged, the device is assembled properly and it is operating normally.
- **DO NOT** use this device in places with high or low humidity or high or low temperatures. Refer to section 7.

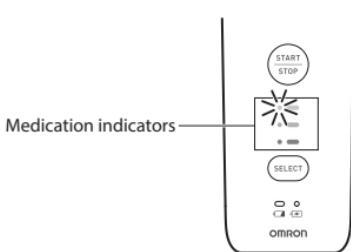
#### 1 Press the [SELECT] button to select your medication.

You can register 3 types of medications in the app. Refer to the instructions in the app for details.

Press the [SELECT] button repeatedly to change the medication by switching medication indicators of green, pink and gray.

Selected medication indicator flashes. After selected, medication indicator will turn off in 10 seconds.

If you need to start inhalation immediately, press the [START/STOP] button to start nebulization. The medication of the top (green) is selected.



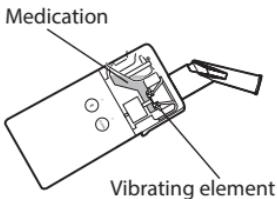
## 2 Hold the main unit and tilt it slightly.

Vibrating element must be immersed in the medication once.

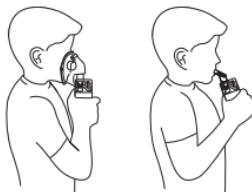
After that, the main unit can be used at any angle.

### Note

- In some positions, nebulization may stop after a short while. In that case, briefly tilt the unit in order to immerse the vibrating element in the medication.



## 3 Place the mask over your mouth and nose or place the mouthpiece in your mouth.



## 4 Press the [START/STOP] button to start inhalation.

The selected medication indicator lights up during nebulization.



## 5 Inhale in a comfortable position.

Breathe slowly and deeply to allow the medication to reach your lungs.

Hold your breath briefly, then breathe out slowly while removing the mouthpiece from your mouth.

### Note

- Do not breathe too quickly.
- Pause when you feel like having a rest.
- If high-viscosity medication is used, nebulization rate may be slower.
- If excessive medication or saliva collects on the mesh, nebulization may stop. In that case, turn off the power and open the medication container. Wipe off the medication using a lint-free cloth.



### Caution

- **DO NOT push or poke at the mesh with items such as a cotton swab or pin.**

## 6 Press the [START/STOP] button to stop inhalation.

Medication indicator will turn off.

The inhalation record will be automatically transferred to the app.

### Note

- Make sure that your device is within 7 ft. (2 m) of your smart device.
- Inhalation records can be stored up to 480 items in the device's memory.
- The device will automatically turn off after 30 minutes.

## Transferring Data Manually

Transfer the inhalation records to the app manually after the inhalation if the data was not transferred automatically.

### Note

- Make sure that your device is within 7 ft. (2 m) of your smart device.

### 1 Press the [Connection] button just once.

The connection indicator is lit and switches to flashing when the transferring starts.

When the transferring is complete, the connection indicator is lit and the buzzer sound beeps. The indicator turns off after 10 seconds.



## 3.2 Cleaning the Device After Each Use

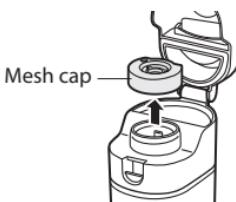
The following items should be disassembled and cleaned after each use in order to prevent any remaining medication in the container from drying or adhering to the mesh cap which will result in ineffective nebulization.

- Main unit
- Medication container
- Mesh cap
- Mouthpiece
- Mask

### **⚠ Warning**

- Failure to properly clean the MICROAir components may cause bacterial growth, serious illness from contamination, and compromised medication delivery.
- DO NOT leave the cleaning solution on the parts. Rinse the parts with clean tap water after cleaning.
- After cleaning, allow the parts to dry before reassembling. To avoid contamination, store the device and parts in a clean and safe location.
- DO NOT immerse the main unit (except the vibrating element and the area around the vibrating element) or the AC adapter in water or other liquid.

### 1 Open the medication container and remove the mesh cap.

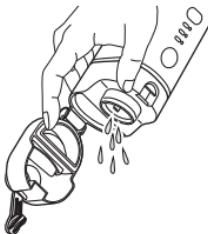


#### **Note**

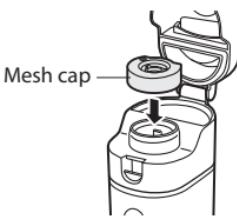
- Do not touch the mesh.



**2 Discard the medication.**

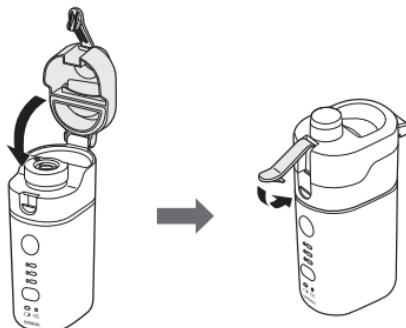


**3 Fill the medication container with distilled water and re-install the mesh cap.**



**4 Close the medication container, then press on the hook to engage.**

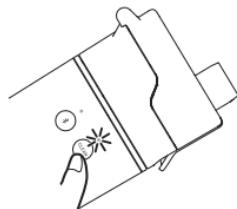
If it is not closed securely, the water may spill out or not be nebulized.



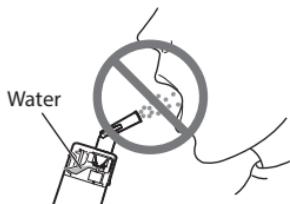
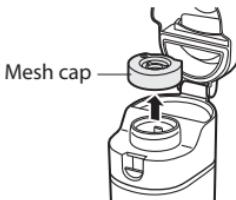
**5 Tilt the main unit to immerse the vibrating element in the water.****6 Press the [CLEAN] button.**

The clean mode starts. This mode will nebulize distilled water for 1 minute to prevent clogging of the mesh, then automatically stops. CLEAN indicator lights while this mode is running and turns off after it stops.

The clean mode is to prevent medication from drying and adhering to the mesh after use.

**Note**

- Do not inhale water.

**7 Open the medication container and remove the mesh cap.****8 Discard the water.****9 Clean each part.**

Refer to sub-section 2.2.

### 3.3 Storing the Device

#### **Warning**

- **DO NOT leave this device or its parts in locations that are exposed to extreme temperature or humidity changes such as in a vehicle or in direct sunlight.**

Keep your device and other components in the storage case when not in use.

Store your device and other components in a clean, safe location.

#### **Note**

- DO NOT store the device with medication in the medication container.
- We recommend carrying the product in the storage case in order to prevent the device from accidentally turning on.

### 3.4 Replacing the Mesh Cap

OMRON recommends replacing the mesh cap after approximately 1 year or if damaged (refer to section 7).

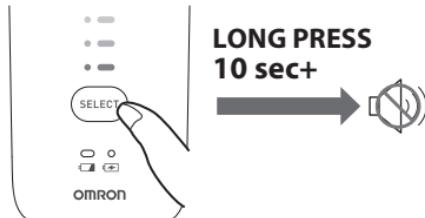
Remove the mesh cap and install a new one as described in sub-section 2.5.

## 4. Other Settings

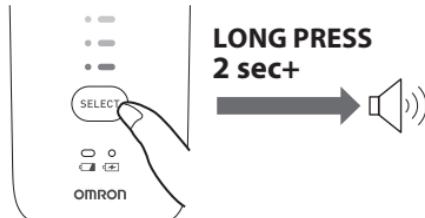
### 4.1 Disabling/Enabling Buzzer Sound

A buzzer sound beeps from this device when any button is pressed. Buzzer sound is enabled by default.

To disable buzzer sound, press and hold the [SELECT] button for 10 seconds. When the setting is complete, the buzzer sound beeps as confirmation.



To enable buzzer sound, press and hold the [SELECT] button for 2 seconds. When the setting is complete, the buzzer sound beeps.



## 4.2 Disabling/Enabling Bluetooth

Bluetooth is enabled by default.

### **⚠ Warning**

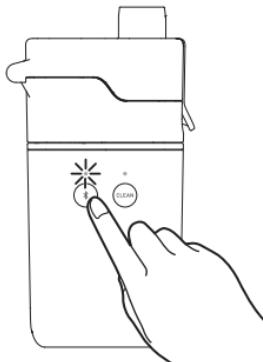
- This product emits radio frequencies (RF) in the 2.4 GHz band. Turn off the Bluetooth® feature in this device when in RF restricted areas, such as on an aircraft or in hospitals. For further information on potential restrictions refer to documentation on the Bluetooth usage by the FCC.

### Disabling Bluetooth

Press and hold the  $\text{⌘}$  [Connection] button for 10 seconds. Connection indicator flashes while pressing the button. When the setting is complete, the sound beeps as confirmation and the indicator turns off.

#### Note

- When the button is pressed while Bluetooth is disabled, the dedicated sound beeps and the connection indicator flashes for 10 seconds.



### Enabling Bluetooth

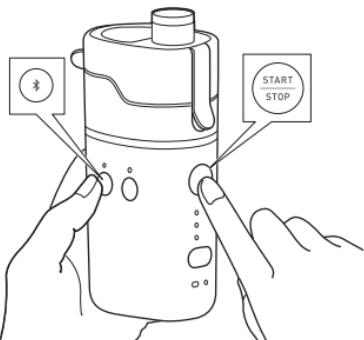
Press and hold the  $\text{⌘}$  [Connection] button for 2 seconds. When the setting is complete, the sound beeps as confirmation and the connection indicator is lit.

## 4.3 Unpairing

To unpair the device (disconnect from smart device), follow the instructions below.

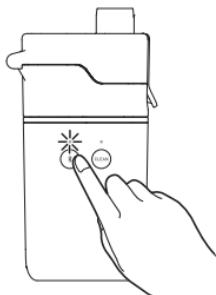
- 1 Press and hold the [START/STOP] button and the  $\mathbb{X}$  [Connection] button at the same time for 2 seconds.**

When the buzzer sound beeps, release your finger from buttons.



- 2 Press and hold the  $\mathbb{X}$  [Connection] button for 2 seconds.**

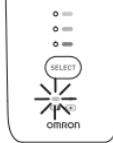
When unpairing is complete, the buzzer sound beeps and the connection indicator is lit. The indicator turns off in 10 seconds.



## 5. Troubleshooting

If any of the below problems occur during use, check to make sure that no other electrical device is within 12 inches (30 cm).

If the problem persists, please refer to the table below.

Problem	Possible Cause	Solution
The charging indicator is not lit. 	The AC adapter is not connected correctly to a power outlet.	Check that the AC adapter is connected to a power outlet and main unit. Unplug then reinsert the plug.
The charging indicator flashes. 	A charging error occurs.	Unplug the AC adapter and place the main unit to the proper environment (refer to section 7). Then plug the AC adapter again.
The battery indicator flashes or is lit. 	Flashes: The battery is low. Is lit: The battery is depleted.	Charge the battery. Refer to sub-section 2.3.
No buzzer sound beeps.	Buzzer sound is disabled.	Enable the buzzer sound. Refer to sub-section 4.1.

Problem	Possible Cause	Solution
The nebulization rate is extremely low.	The battery is low (the battery indicator flashes).	Charge the battery. Refer to sub-section 2.3.
	The mesh is stained or clogged.	Clean the mesh. If it does not improve, replace the mesh cap with a new one. Refer to sub-section 2.2 or 2.5.
	The mesh is damaged.	Replace the mesh cap with a new one. Refer to sub-section 2.5.
The medication indicator does not light and the unit does not nebulize.	The battery is depleted (the battery indicator lights).	Charge the battery. Refer to sub-section 2.3.
The medication indicator lights but the unit does not nebulize.	The vibrating element is not immersed in the medication.	Tilt the main unit in order to immerse the vibrating element in the medication.
	The medication container is not filled with medication.	Fill with medication. Refer to sub-section 2.5.
	The mesh is broken.	Replace the mesh cap with a new one. Refer to sub-section 2.5.
	Excessive medication is collected on the mesh.	Remove excessive medication. Refer to sub-section 3.1. Remove visible liquid with a soft cloth and a very light touch so as not to damage the mesh.
The medication indicator lights but it nebulizes weakly, or is taking too long for treatment.	Nebulization rates vary based on the medication used.	Treatment times may vary among medications and patients.

## 5. Troubleshooting

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Communication issue occurs.	This device and smart device are not paired.	Pair the device with your smart device. Refer to sub-section 2.4.
	Bluetooth is disabled.	Enable the Bluetooth function. Refer to sub-section 4.2.
	Any other communication issue occurs.	Follow the instructions shown in the smart device, or visit the "help" section in the app for further help. If the problem still persists, contact customer service.

If the device does not nebulize properly after checking the possible causes above, contact customer service 1-800-634-4350.

## 6. Optional Medical Accessories

Product Description	Model
Adult Mask (PVC)	9922
Child Mask (PVC)	9923
Mouthpiece	U110-1
Medication Container	U110-3
Mesh Cap	U100-4
AC Adapter	U110-5

## 7. Specifications

<b>Product Category</b>	Nebulizers
<b>Product Description</b>	Vibrating Mesh Nebulizer
<b>Model</b>	RE-U110 <small>[REF]</small> NE-U110T1-Z
<b>Rating</b>	12 V === 1.5 W
<b>Power Source</b>	AC adapter 100 - 240 V ~ 0.28 - 0.16 A, 50/60 Hz Lithium-ion battery 3.7 V 1660 mAh
<b>Battery Life</b>	Approx. 3 hours (fully charge, 23 °C)
<b>Operation Mode</b>	Continuous operation
<b>Nebulization Rate</b>	* <sup>1</sup> 0.25 - 0.9 ml/min (by weight loss)
<b>Particle Size</b>	* <sup>2</sup> MMAD approx. 5 µm MMAD = Mass Median Aerodynamic Diameter
<b>Medication Container Capacity</b>	10 ml max.
<b>Transmission Method</b>	Bluetooth® Low Energy
<b>Wireless Communication</b>	Frequency range: 2.4 GHz (2400 - 2483.5 MHz) Modulation: GFSK Effective radiated power: < 20 dBm
<b>Residual Volume</b>	Approx. 0.5 ml
<b>Appropriate Medication Quantities</b>	Approx. 2 to 10 ml
<b>Sound</b>	Less than 23 dB
<b>Operating Conditions</b>	+50 °F to +104 °F (+10 °C to +40 °C), 30 to 85 %RH (non-condensing), 700 to 1060 hPa
<b>Battery Charging Conditions</b>	+10 °C to +35 °C, 30 to 85 %RH (non-condensing), 700 to 1060 hPa
<b>Transportation Conditions</b>	-4 °F to +140 °F (-20 °C to +60 °C), 10 to 90 %RH (non-condensing)
<b>Storage Conditions</b>	-4 °F to +122 °F (-20 °C to +50 °C), 10 to 90 %RH (non-condensing)
<b>Weight</b>	* <sup>3</sup> Approx. 7 oz (200 g)
<b>Dimensions</b>	* <sup>3</sup> Approx. 2.8" (W) x 5.1" (H) x 1.7" (D) (72 mm x 130 mm x 44 mm)
<b>Aerosol Output</b>	* <sup>4</sup> Approx. 0.5 ml (2 ml, 2.5 %NaF)
<b>Aerosol Output Rate</b>	* <sup>4</sup> Approx. 0.24 ml/min. (2 ml, 2.5 %NaF)
<b>Required Charging Time</b>	Approx. 6 hours (from empty to fully charge)

<b>Contents</b>	Main unit, medication container, mesh cap, mouthpiece, child mask (PVC), storage case, AC adapter, instruction manual, app installation guide, cleaning instructions
<b>Protection Against Electric Shock</b>	Internally powered ME equipment (When using only the internal rechargeable battery) Class II ME equipment (When using the AC adapter)
<b>IP Classifications</b>	IP55
<b>Applied Part</b>	Type BF (Applied part); Mouthpiece, Mask

- \*1 The Nebulization rate is measured with 3 ml saline 0.9 % solution at 23 °C at spray angle of 30°.
- \*2 Measured values reflect internal data obtained by NEXT GENERATION IMPACTOR (NGI), measured with 2.5 %NaF aqueous solution, according to ISO 27427:2013.
- \*3 Main unit assembled with medication container (contains maximum 10 ml of medication), mesh cap and mask.
- \*4 Measured with 2.5 %NaF aqueous solution, according to ISO 27427:2013.

#### **Note**

- Subject to technical modification without prior notice.
- The device may not work if the temperature and voltage conditions are different to what is defined in the specifications.
- Performance of mesh nebulizers may vary based on medications used (e.g. if they are suspensions or have a high viscosity). When the temperature of the medication is low, the nebulization rate may decrease. See medication supplier's data sheet for further details.
- IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This device using only the rechargeable batteries is protected against ingress of dust which would cause issues during a normal operation, and against water jets which may cause issues during a normal operation.
- Operation mode classification complies with IEC 60601-1.

### **About a Wireless Communication Interference**

This product operates in an unlicensed ISM band at 2.4 GHz. In the event this product is used near other wireless devices such as microwave and wireless LAN, which operate on the same frequency band as this product, there is a possibility that interference may occur. If interference occurs, stop the operation of the other devices or relocate this product away from other wireless devices before attempting to use it.

### **Durable Period**

Durable periods are as follows, provided the product is used to nebulize a medication twice a day for 10 minutes each time at room temperature (23 °C).

Durable period may vary depending on usage environment.

Frequent use of the product may shorten the durable period.

<b>Main Unit</b>	5 years	<b>AC Adapter</b>	5 years
<b>Medication Container</b>	1 year	<b>Mouthpiece</b>	1 year
<b>Mesh Cap</b>	1 year	<b>Mask (PVC)</b>	1 year

### **Disposal**

Dispose of the device, components and optional accessories according to applicable local regulations.

## 8. FCC Statement

### **FCC CAUTION**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **Note**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

## 9. Limited Warranty

Your RE-U110 main unit, excluding the Medication Container, Mesh Cap, Mouthpiece, Batteries, Child Mask (PVC), AC adapter and Storage Case is warranted to be free from defects in materials and workmanship appearing within 2 years from the date of purchase, when used in accordance with the instructions provided with the RE-U110.

The above warranty extends only to the original purchaser and only to products purchased from an OMRON authorized seller who is subject to and follows OMRON's quality control standards. We will inspect and replace your unit without charge as deemed necessary by the above warranty. This is our only responsibility and your only remedy under the above warranty.

To obtain warranty service contact Customer Service by calling **1-800-634-4350** for the address of the inspection center and the return shipping and handling fee.

Enclose the Proof of Purchase. Include a letter, with your name, address, phone number, and description of the specific problem. Pack the product carefully to prevent damage in transit. Because of possible loss in transit, we recommend insuring the product with return receipt requested.

**THE FOREGOING IS THE SOLE WARRANTY PROVIDED BY OMRON IN CONNECTION WITH THIS PRODUCT, AND OMRON HEREBY DISCLAIMS ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IMPLIED WARRANTIES AND OTHER TERMS THAT MAY BE IMPOSED BY LAW, IF ANY, ARE LIMITED IN DURATION TO THE PERIOD OF THE ABOVE EXPRESS WARRANTY.**

**OMRON SHALL NOT BE LIABLE FOR LOSS OF USE OR ANY OTHER SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT COSTS, EXPENSES OR DAMAGES.**

This warranty provides you with specific legal rights, and you may have other rights that vary by jurisdiction. Because of special local requirements, some of the above limitations and exclusions may not apply to you.

### FOR CUSTOMER SERVICE

Visit our web site at:

[OmronHealthcare.com](http://OmronHealthcare.com)

Call toll free:

1-800-634-4350

## 10. Guidance and Manufacturer's Declaration

### OMRON RE-U110

Information for accompanying documents in the scope of IEC60601-1-2:2014

Important information regarding Electromagnetic Compatibility (EMC)

RE-U110 manufactured by OMRON HEALTHCARE Co., Ltd. conforms to IEC60601-1-2:2014 Electromagnetic Compatibility (EMC) standard.

Further documentation in accordance with this EMC standard is available at

[OmronHealthcare.com/emc](http://OmronHealthcare.com/emc).

### Copyright

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## Note





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