

Instruction Manual

PCO (Photocatalytic Oxidation) Air Purifier

Model No. **04A1U-OW**

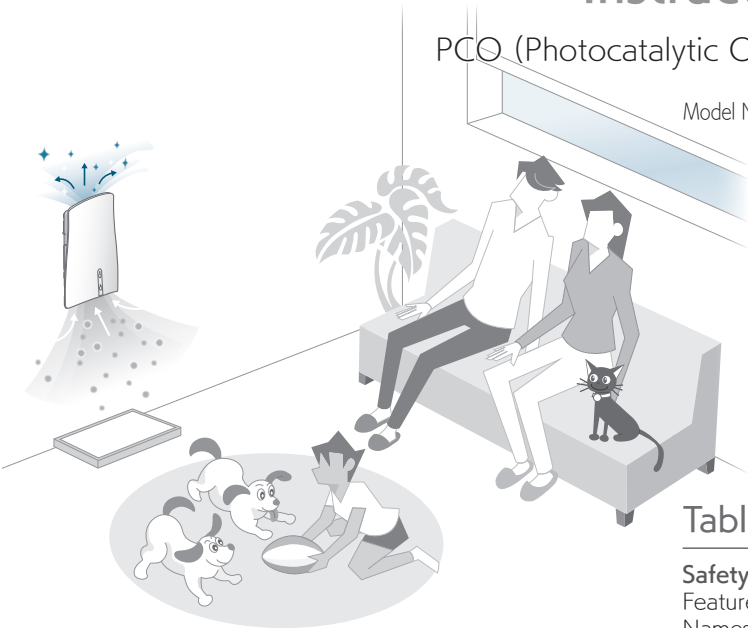


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Thank you so much for purchasing the Sunstar Engineering product.

- Read this Instruction Manual carefully to use the product correctly and safely.
- Before use, be sure to read "Safety Precautions" (pages 2-4).
- After reading the manual, keep this at hand for ready reference.

FOR USE IN U.S. ONLY  
WARRANTY VOID IF USED OUTSIDE U.S.  
It cannot be used in the other countries different in  
power supply voltage and power supply frequency.  
The after-sales service is not applicable either.

# Safety Precautions Always observe

This section describes the matters you should always observe to prevent personal injury and damage to property.

■ For convenience of description, the results of wrong use are classified as follows:



Failure to observe this “may result in death or serious injury.”



Failure to observe this “may result in slight injury or damage to property.”

■ The matters you should observe are depicted with the following graphic symbols.



The matter you must not do.



The matter you must do.



To prevent a fire, electric leakage, electric shock, and serious injury

## In case of an abnormality or a failure



- In case of an abnormality or a failure, immediately turn OFF the power and pull out the AC adapter. (Causing smoking, combustion, or electric shock) Contact your dealer or access the contact information to request inspection.

<Example abnormalities and failures>

- The main body generates heat abnormally, and smells burnt.
- Operation stops.
- The product emits an abnormally loud sound, or vibrates violently.
- The cord is damaged (e.g., some conductors are exposed or broken).

## In cleaning or carrying



- Be sure to turn OFF the power, and pull out the AC adapter. (Causing an electric shock or an injury)
- Do not pull the cord. (A break in it may cause an electric shock or a fire due to a short circuit etc.)

## As for the AC adapter and cord



- Do not use the AC adapter and cord in excess of the ratings of outlets and wiring accessories, nor use them except at 120 VAC. (Causing a fire or an electric shock)
- Do not use the product when its AC adapter and cord are damaged or loosely connected to outlet.
- Do not damage, process, forcibly bend, pull, twist, tie, or bring the cord close to hot sections.
- Do not put any heavy things on the cord, nor put this between them. (Causing an electric shock or a fire due to a short circuit etc.)
- Do not put a plug into or out of an outlet with wet hands. (Causing an electric shock)
- Do not use any other AC adapter than the enclosed one, nor use it for any other purpose. (Causing a fire due to a burn, short circuit, etc.)



- Put the power plug all the way in securely. (Incomplete insertion may cause an electric shock or a fire due to heat generation.)
- From the power plug and terminal, remove dust periodically with dry cloth. (Faulty insulation due to moisture may cause a fire.)



**WARNING**

To prevent a fire, electric leakage, electric shock, and serious injury

## Main body



- Do not disassemble, repair, or modify. → Consult your dealer about repair. (Causing an electric shock or a fire due to combustion or malfunction)
- Do not soak the product in water or splash water on it.
- Do not install the product to a place that is hot and humid or where water will splash, such as a bathroom. (Causing an electric shock or a fire due to a short circuit etc.)

- Do not put your finger, metallic substance, or any other foreign object into the air intake, air outlet, and opening. (Touching inside may cause an electric shock or an injury.)
- Do not use the product within the reach of babies and infants. (Causing an accident or an injury)
- Do not leave small parts, such as enclosed parts, alone. (Otherwise, babies and infants or pets may swallow them by accident.)



**CAUTION**

To prevent an electric leakage and injury, and protect property

## In installation



- Conditions for a wall for installation
  - Select a flat and strong drywall, wooden board wall, or concrete wall.
  - Attach the product to a position where your pets' drinking water or excreta will not be splashed.
  - If you do not want a wall to become dirty, stick plastic sheets on the wall.
    - \* Because the wall might be stained with time (Causing some stains)
- Use provided bracket only



- Avoid installation to the following places:
  - A place where greasy fumes or combustible gas may be used or leak (Causing ignition, combustion or smoking due to suction to the main body)
  - A place near combustibles such as a curtain and a wastebasket (Causing a fire)
  - A place exposed to direct sunlight or heaters (Causing deformation, degradation, or discoloration)
  - A place where the air intake or the air outlet will be blocked with a curtain
  - A place where your pets' excreta will be splashed, or that which will be tampered or jumped on (Causing a failure)
  - A place where your pets bite a cord (Causing an electric shock)
  - A place where your plants and animals are blown directly by wind from the air outlet (Causing them to be dried by wind)
  - A place where vibrations are strong (Causing a drop)

## During use



- Ventilate a room during use together with a burning appliance.
  - This product does not have a ventilation function. (Causing carbon monoxide poisoning)
- When it starts to thunder, do not touch the main body or the AC adapter. (Causing an electric shock or a fire due to lightning)
- Do not step on, put a thing on, or lean on the main body. (Causing an injury or a failure due to a drop)
- As for the PCO unit
  - Do not give any shock (Handle it carefully in cleaning). (Causing a failure due to cracking or chipping)
  - Do not leave it wet in attachment. (Causing a failure or a decrease in deodorization performance)
- Direct exposure of skin and eyes to UV-LED radiation from some UV-LED may cause painful eye injury and burn-like skin reactions. Never look directly at a UV-LED even briefly.

# Safety Precautions (continued)



## CAUTION

To prevent an electric leakage and injury, and protect property

### As for the AC adapter and cord



- In pulling out the AC adapter or the terminal, hold and pull out the AC adapter or the terminal without pulling the cord. (Causing an electric shock or a fire due to a short circuit etc.)
- Not using the product for a long time, be sure to pull out the AC adapter from the outlet. (Causing an electric shock or a short-circuit fire due to deterioration of insulation)
- If your pets bite a cord, immediately stop them doing it. (Causing an electric shock)

### Do not perform the following:



- Do not spray insecticide or use insecticide of smoking type nearby. (Causing an electric shock or a fire due to a short circuit etc. Pharmaceutical ingredients may be emitted from the air outlet, doing harm to your health.)
- Do not operate the product with the meshes of the air intake and the air outlet removed. (Causing a fire, short circuit, or decrease in deodorization performance)
- Do not use benzine or thinner for wiping, nor spray insecticide. (Causing cracks or a fire)
- Keep the product away from combustibles, lit tobacco, incense stick, or the like. (Causing a fire due to ignition)

## NOTICE

- Clean the air intake and the air outlet periodically.  
→ This prevents clogging with your pet fur etc.
- Do not block the air intake and the air outlet during operation.
- Do not drop the product to give any strong shock to this.  
(Causing performance degradation or a failure)

# Features

Ammonia, which is a main component in pet odors, has a tendency to spread throughout the room because it is lighter than air.

By installing this product above the pet litter area where pet stench is a concern, odors can be quickly removed and deodorized.

Our product operates so quietly\*<sup>1</sup> that it does not disturb surrounding pets and humans, so it can be used 24 hours a day, 7 days a week!



Before use

Sunstar's proprietary photocatalyst and UV technology offers:

- Control of bacteria and viruses from creating odors
- No emissions of ozone or chemicals
- Energy efficient operation, about 7.2 cents a day, even with around-the-clock operation\*<sup>2</sup>
- No hassle filterless design\*<sup>3</sup> for easy maintenance
- Our wall mounted design reduces the risk that pet hair gets entangled in the product

\*<sup>1</sup> In standard mode, the sound levels at approximately 3.3 ft from the outlet port and the inlet port are just 26 dB and 22 dB, respectively.

Measured by Sunstar Engineering Inc. Depending on the measurement conditions, values could vary.

\*<sup>2</sup> In standard mode.

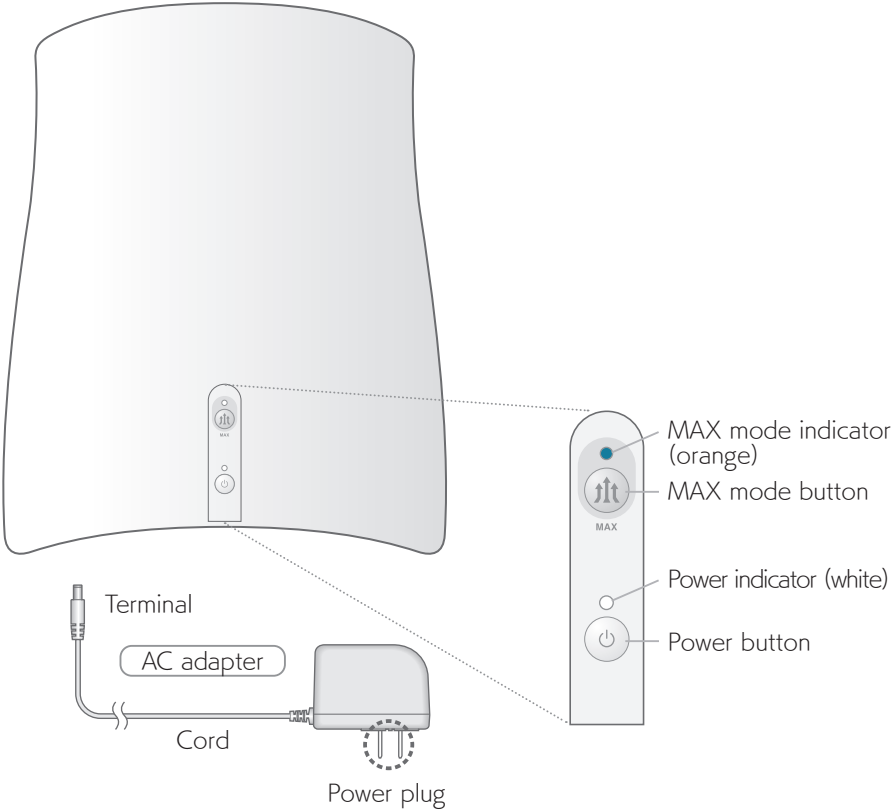
The calculation is based on a utility rate of 25cents per kWh in California.  
The estimate will vary with your local electric rates.

\*<sup>3</sup> No absorption filter is used inside the product.

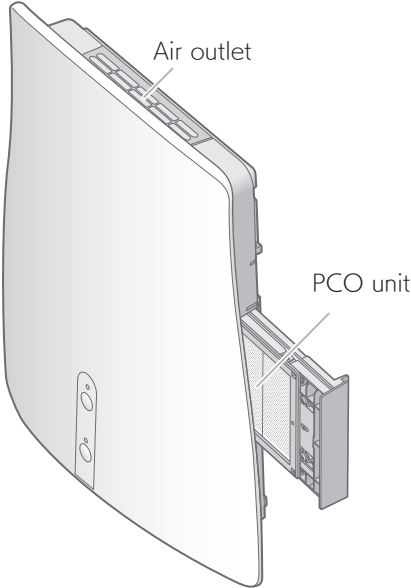
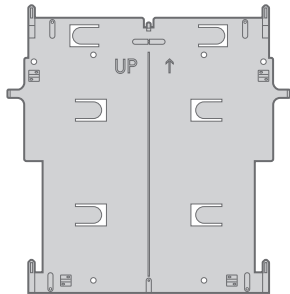
Periodic cleaning of the air intake and the air outlet is still required.

# Names of Parts

Main body

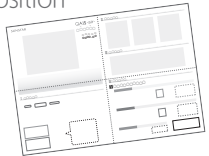


Bracket



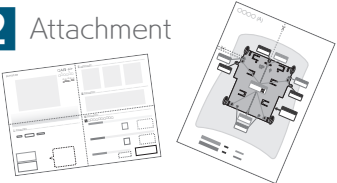
# Flow of Use

## 1 Determination of Installation Position



Refer to the attached sheet Start Guide.

## 2 Attachment



Refer to the attached sheets Start Guide and Full-scale Drawing (A).

## 3 Operation



Page 10 of this manual

To Maintain Deodorizing Power



Page 12 of this manual

# 1 Determination of Installation Position

Refer to the attached sheet Start Guide.

## ■ Effective installation position

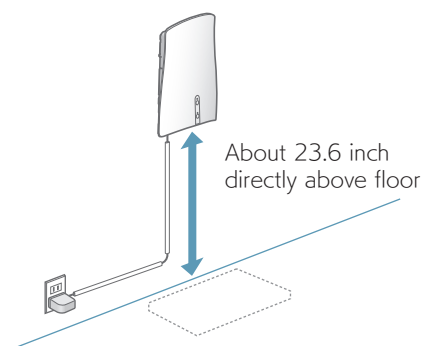
Ammonia (toilet smell), a main ingredient of pet smell, is lighter than air, so it has a tendency to go up.



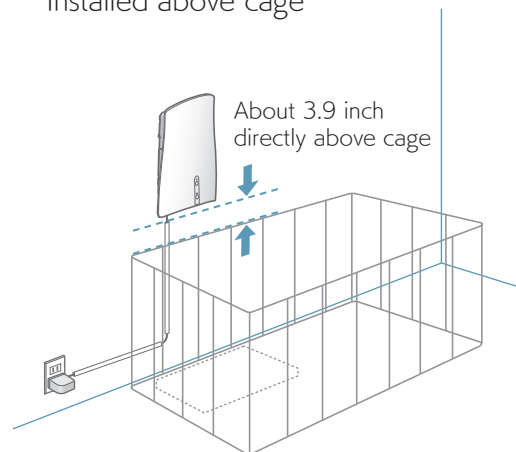
**Being installed above a place smelling unpleasant such as a pet toilet,** this product quickly catches and removes the

smell before it pervades the room.

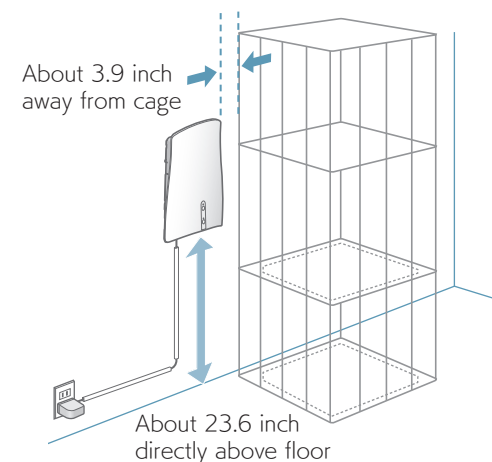
Installed above pet toilet



Installed above cage



Installed near multistage cage



## ■ Precautions for installation

Contact a hardware store or qualified contractor to install the bracket if you have any questions or concerns.

You risk the possibility of damaging the Air Purifier, damaging other property and personal injury if the bracket is not installed properly.

Check to make sure there are no missing or defective parts.

Do not attempt to install the bracket if there are missing or defective parts.

SUNSTAR is not liable for damage or injury caused by incorrect mounting, incorrect assembly or incorrect usage.

- After installing the bracket, make sure it is firmly in place before putting QAIS-air-on it.
- Take care not to drill or screw into existing wiring in the wall while installing the bracket.

# 2 Attachment

Refer to the attached sheets Start Guide and Full-scale Drawing (A).



Referring to the attached sheets Start Guide and Full-scale Drawing (A), attach the main body to the wall.

You can download the Start Guide from SUNSTAR QAIS website.  
[us.sunstarqais.com](http://us.sunstarqais.com)

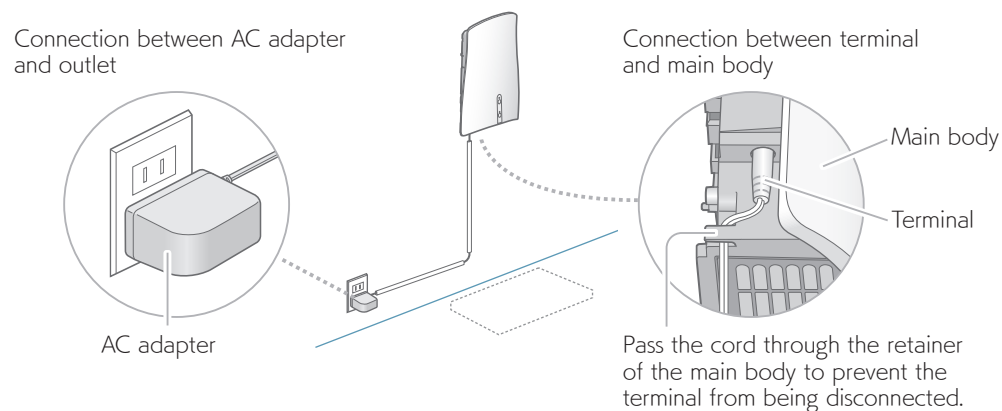


Before installation, move away all the cages and pet toilets and make sure your pets are not in the surrounding area.

- Check that the wall is flat and is strong enough to hold the bracket.
- Note the following points according to the wall material.
  - ▶ Use nails, in installation to a drywall.
  - (Using wood screws may cause the product fall off.)
  - ▶ Use wood screws, in installation to a wooden board wall.
  - ▶ In installation to a concrete wall, use commercial anchor plugs for correct attachment.
  - (Anchor plugs are not supplied.)
- Avoid installation to the following places:
  - ▶ A place where your pets could splash urine on or tamper with the product (Causing a failure)
  - ▶ A place where vibrations are strong (Causing a failure)
  - ▶ A place near combustibles such as a curtain or a wastebasket are located (Causing a fire)
  - ▶ A place within the reach of babies and infants (Causing an injury)
  - ▶ A place that is hot and humid or where water could be splashed, such as a bathroom (Causing an electric shock or a fire due to an electric leakage)
  - ▶ A place where greasy fumes or combustible gases may be used or leak (Causing ignition, combustion or smoking due to suction to the main body)
  - ▶ A place exposed to direct sunlight or heaters (Causing deformation, degradation, or discoloration)
  - ▶ A place where the air intake or the air outlet will be blocked by a curtain (Causing a failure)

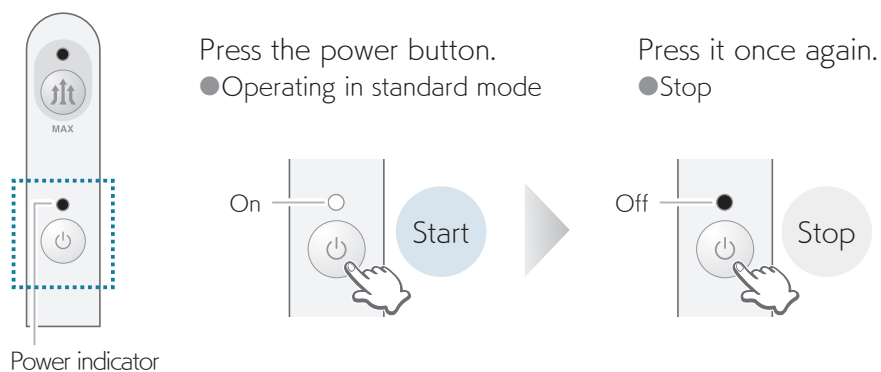
### 3 Operation

- ① Check that the terminal is connected to the main body and the AC adapter is plugged into an outlet.



- ② Start operation.

- With around-the-clock operation, even a sudden smell can be removed effectively.
- Energy efficient operation, about 7.2 cents a day, even with around-the-clock operation\*1.

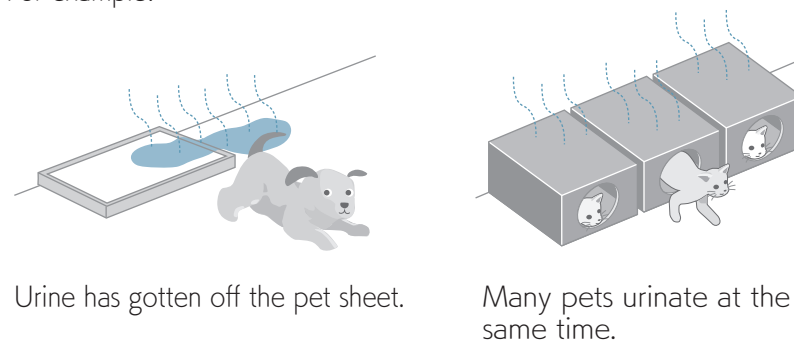


\*1 In standard mode.  
The calculation is based on a utility rate of 25cents per kWh in California.  
The estimate will vary depending on your local electric rates.

If an especially unpleasant smell is present

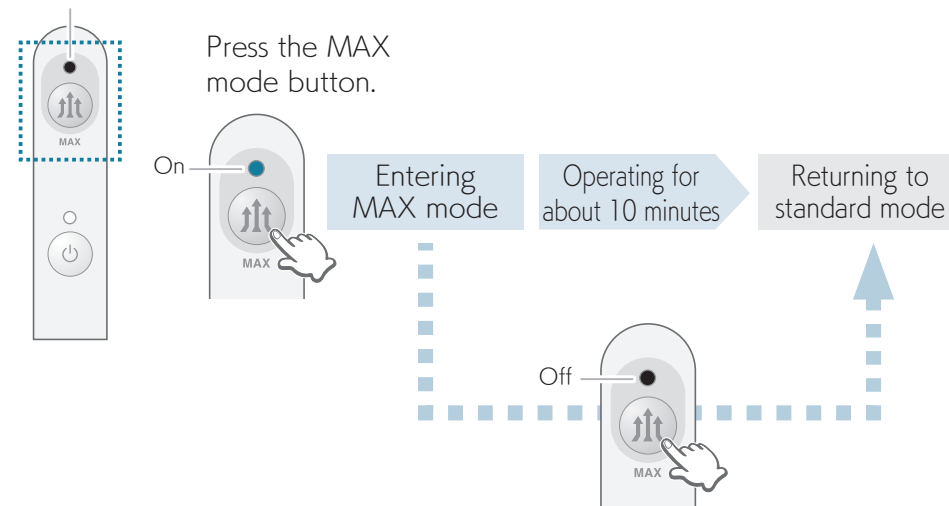
- ③ Change operation modes (from standard mode to MAX mode).

- MAX mode is used to the rapidly remove an unpleasant smell.
- For example:



- After the product operates for about 10 minutes, MAX mode returns to standard mode automatically.

MAX mode indicator



Pressing the MAX mode button again during the MAX mode operation returns the product to the standard mode.

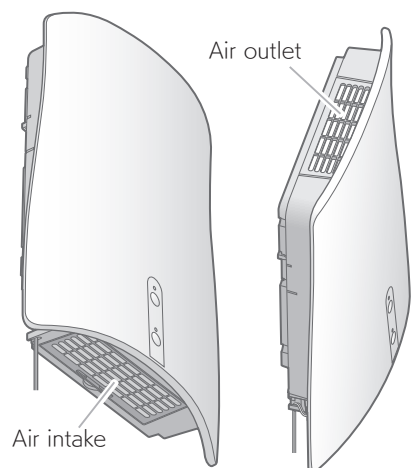


# To Maintain Deodorizing Power (Cleaning of Air intake and Air outlet)

## ■ Precautions for cleaning

- In checking for and cleaning up dust, turn OFF the power and unplug the AC adapter from the outlet.
- In cleaning with the main body attached to the wall, be careful not to let it come off and fall.
- When cleaning with the main body removed from the wall, be careful not to let it fall.

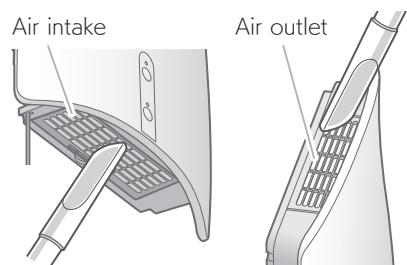
## ■ Checking for dust in the air intake and the air outlet. (Guideline: About once a month)



If dust has collected

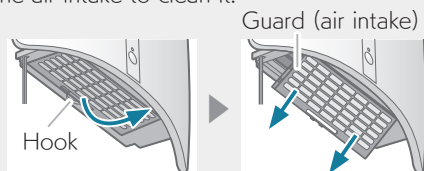
## ■ Cleaning the air intake and the air outlet

### Cleaning with product attached to wall



Remove dust with a vacuum cleaner.

You can also remove the guard of the air intake to clean it.

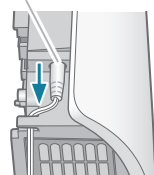


Disengage the hook to pull it out.

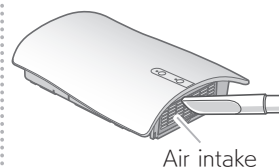
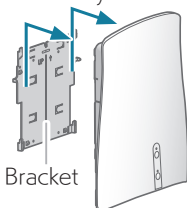
\* Before doing work, be sure to turn OFF the power and unplug the AC adapter.  
(The entry of dust may cause a failure..)

### Cleaning with product removed from the wall (if cleaning is difficult without removal)

- ① Release the cord from the retainer and unplug the terminal of the AC adapter.
- ③ Put it on a stable place, and clean off dust with a vacuum cleaner.



- ② Pull the main body up straight, and pull this out toward you.



- ④ Set the main body back to the bracket.  
(see step ⑧ on page 16)

# Troubleshooting

Perform the following checks. If the problem persists, be sure to turn OFF the power, unplug the AC adapter, and contact your dealer or use the contact information (Back cover) to request repair and inspection.

Problem	Check and remedy
The product does not run, or the power indicator is not lit.	<ul style="list-style-type: none"> <li>● Check for correct insertion between the terminal and the main body, and between the AC adapter and the outlet. → Insert them correctly. [Start Guide]</li> <li>● Check whether the power is ON. → Press the power button to turn it ON. (The power indicator goes on.) [Page 10]</li> <li>● Check whether the PCO unit is installed correctly. → Attach it correctly. [Page 14-16]</li> </ul>
Operation does not stop.	<ul style="list-style-type: none"> <li>● Check whether you pressed the power button. (Check whether the MAX mode button is not mistaken for that.) → Press the power button to turn it OFF. (The power indicator goes out.) [Page 10]</li> </ul>
The product does not operate in MAX mode.	<ul style="list-style-type: none"> <li>● Check whether you pressed the MAX mode button after making it operate in standard mode. → After making it operate in standard mode, press the MAX mode button. (The MAX mode indicator goes on.) After it operates for about 10 minutes, MAX mode returns to standard mode automatically. [Page 10]</li> </ul>
MAX mode does not return to standard mode.	<ul style="list-style-type: none"> <li>● Check whether about 15 minutes have passed since you pressed the MAX mode button. → As the indoor temperature becomes higher, the operating time in MAX mode becomes longer. (After a while, it might return to standard mode.) * You can put it back to standard mode by pressing the MAX mode button once again during operation in MAX mode.</li> </ul>
The product operates for a short time in MAX mode.	<ul style="list-style-type: none"> <li>● Check whether the indoor temperature is not low. → Use it at an indoor temperature of 5 to 35°C / 41 to 95°F . (As the indoor temperature becomes lower, the operating time in MAX mode becomes shorter.)</li> </ul>
Smell is not removed.	<ul style="list-style-type: none"> <li>● Check whether the power is ON (the power indicator is lit). → Press the power button to turn it ON. [Page 10]</li> <li>● Check whether the main body is installed too far away from the smell source. (23.6 inch recommended) → Install the main body near the smell source. [Page 8-9,17]</li> </ul>
The deodorization ability has declined.	<ul style="list-style-type: none"> <li>● Check whether dust has collected in the air intake. → Clean the air intake. [Page 12]</li> <li>● Check whether dust has adhered to the PCO unit. → Clean the PCO unit. [Page 14-16]</li> </ul>
The sound has become large.	<ul style="list-style-type: none"> <li>● Check whether dust has collected in the air intake and the air outlet. → Clean the air intake and the air outlet. [Page 12]</li> <li>● Check whether the bracket is attached firmly. → Attach it again firmly with nails or the wood screws. [Start Guide]</li> <li>● Check whether you hear any wall vibrating sounds. → These might be removed by changing the installation position. [Page 17]</li> </ul>
To change the installation position or the location.	<ul style="list-style-type: none"> <li>● Remove the bracket from the wall, and relocate it. [Page 17]</li> </ul>
The Start Guide was lost.	<ul style="list-style-type: none"> <li>● Download it from the Sunstar website. [Page 9]</li> </ul>

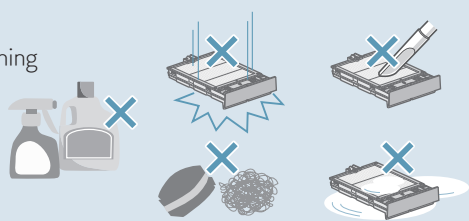
# Troubleshooting (continued)

## ■ Cleaning the PCO unit

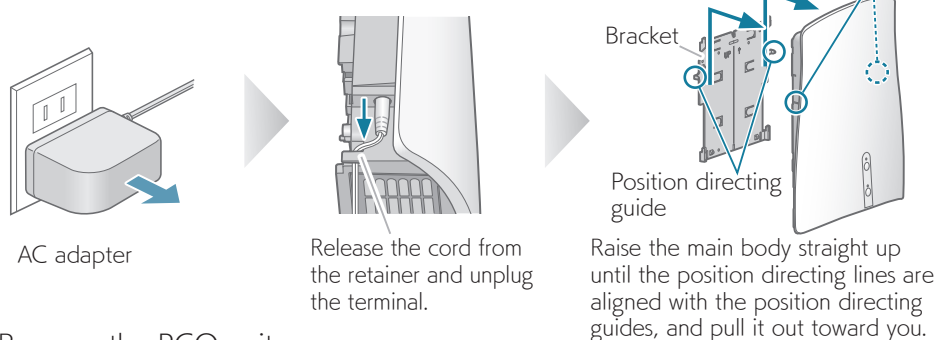
To be prepared: Phillips screwdriver.

### Precautions for cleaning the PCO unit

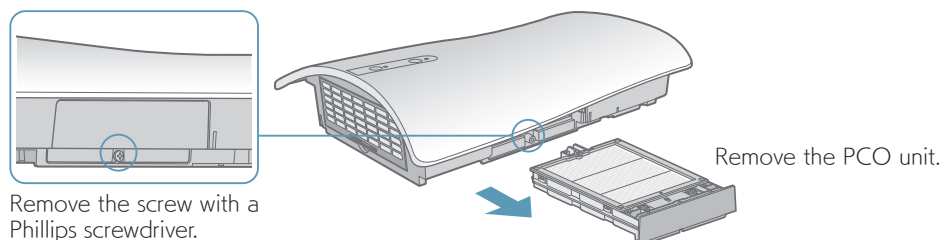
- Do not drop or bump the PCO unit on anything or strike it.
  - Do not use a brushless vacuum cleaner nozzle.
  - When washing in warm water
    - Do not use detergent.
    - Do not rub it hard with a scrub brush.
    - Do not attach it while water is dripping.
- (Causing a failure or a decrease in deodorization performance)



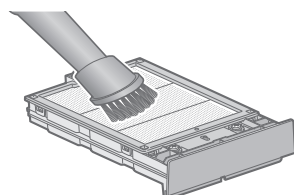
- ① Turn OFF the power, and unplug the AC adapter from the outlet. Unplug the terminal from the main body, and remove it from the wall.



- ② Remove the PCO unit.



- ③ Using a vacuum cleaner with a brush, clean both sides of the PCO unit.



\*Be sure to use a vacuum cleaner with a brush in order not to damage the PCO unit.

\*If you feel that smell persists even after using a vacuum cleaner → step ⑤

- ④ Put the PCO unit back in, and tighten the screw. (see step ②) → step ⑧

If you feel that smell persists even after using a vacuum cleaner

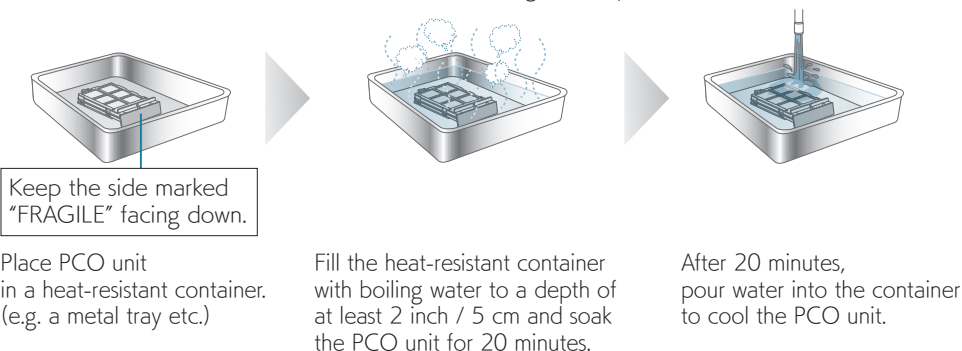
If the product has been used for a long time in an environment with a strong smell, its deodorization ability might decline on rare occasions. The deodorization ability can be restored by immersing the PCO unit in hot water.  
→ After steps ① to ③, go to step ⑤

### ⚠CAUTION

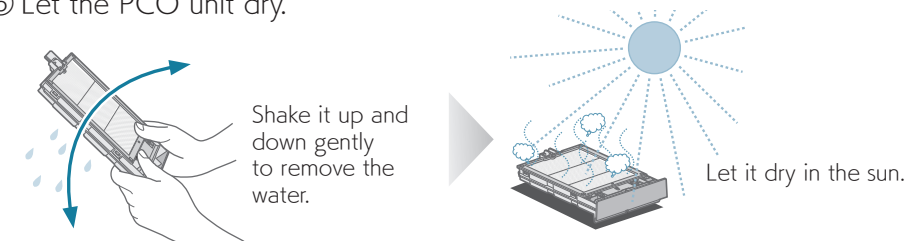
- Be careful not to burn yourself when handling the boiling water.
- Carry out so in area hot water flows. (e.g. sink etc.)
- Do not heat the PCO unit immersed in hot water. (Do not use a microwave or range.)

- ⑤ Put PCO unit in boiling water for 20 minutes.

\* Use a container with no contamination of detergent, soap, chemical, or oil.



- ⑥ Let the PCO unit dry.



Holding the PCO unit firmly with both hands, shake it up and down gently to remove the water. (Be careful not to drop it or bump on against something.)

Expose the side marked "FRAGILE" of the PCO unit to the sun and leave it for more than half a day until it dries.

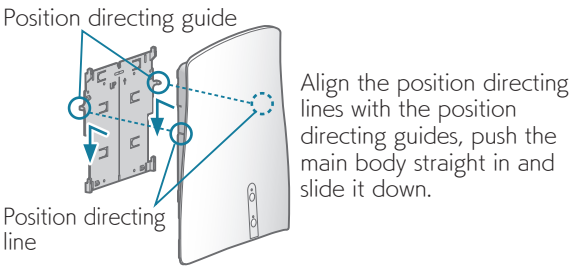
- \* Let it dry in a place where it is not bumped, such as by falling.
- \* Do not put it close to or into a fire or other heat source.



# Troubleshooting (continued)

⑦ Check that the PCO unit has dried thoroughly, then put it back in and tighten the screw. (see step ②)

⑧ Attach the main body to the bracket and connect the terminal of the AC adapter again. (see step ①)



■ When the main body becomes dirty

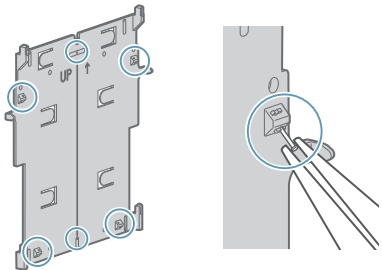
- Wipe it with a soft, dry cloth.
- If it is very dirty
  - Wipe off the dirt with a soft cloth soaked in lukewarm water or cold water, wring it out, and then dry off the unit with a dry cloth.
- \* Do not use thinner, benzine, polishing powder, or the like. (Doing so could cause discoloration or deformation)

■ How to remove the bracket

To change the installation position or the location, remove the bracket and relocate it.

For drywall

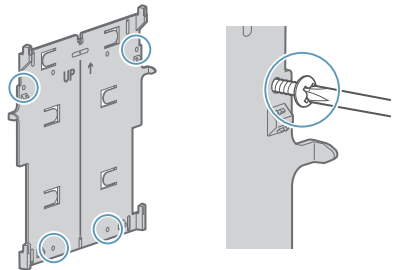
To be prepared: Pliers



Hold and pull out the nail with pliers.  
(2 pcs. × 4 pt. + 1 pc. × 2 pt.: 10 pcs. in total)

For wooden board wall

To be prepared: Phillips screwdriver



Remove the wood screws with a Phillips screwdriver (4 pt.).

\* The nails used for this product do not leave conspicuous marks.  
The marks made by pulling out the nails will be less conspicuous if you push in the wallpaper around them lightly with a spatula.

For how to attach to the bracket, refer to the Start Guide. (see page 9)

# Specifications

Model No.		04A1U-OW
Power supply		120 VAC, 60 Hz
Power consumption	MAX mode / standard mode	23 / 12 W
Operating sound	MAX mode / standard mode	41 / 26 dB
Dimensions (Width x Height x Depth)		11.6 × 14.5 × 3.3 inch
Product mass		3.5 lbs / 1.6 kg
Length of cord		6.6 ft

• Operating Sound is measured based on the JIS C9615 A scale, standard of the Japanese Industrial Standards.

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.

#### FCC CAUTION

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

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.

Contact

**Transcosmos America Inc.**

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# Limited Warranty Policy and Privacy Policy

Refer to the SUNSTAR QAIS website ([us.sunstarqais.com](http://us.sunstarqais.com)) for information on warranty and privacy policy.

## Contact Information

Email : [support@us.sunstarqais.com](mailto:support@us.sunstarqais.com)

URL : [us.sunstarqais.com](http://us.sunstarqais.com)