

maxell

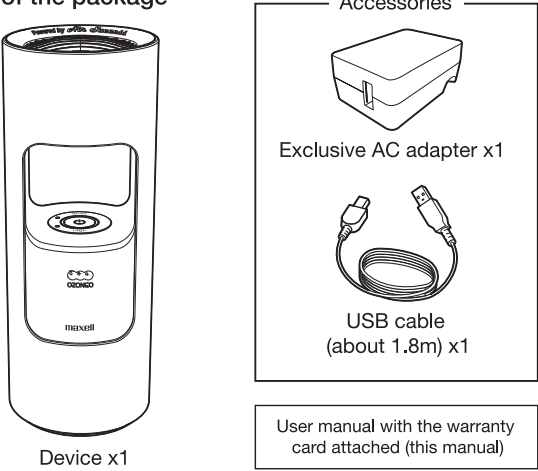
Low Concentration Ozone Anti-bacteria Deodorizer

MXAP-AR201

User manual

Thank you very much for buying this product. Please read the user manual in advance and use the product safely. This manual also serves as the warranty card. Please keep it properly. Please take reference to the attached appendix if there is any.

Content of the package



1 Preface

About the user manual

- Contents of this user manual might be changed in the future without prior notice.
- For product improvement, change of appearance or specification might not be announced in advance.
- Except for personal use, any unauthorized copying of part or all parts of this manual is prohibited. Unauthorized republication is strictly prohibited.

Disclaimer (For details of warranty, please refer to the warranty card)

- Maxell shall not be responsible for any damage caused by fires, earthquakes, action of a third party, any accidents, intended or unintended misuse or other usage under abnormal conditions.
- All explicit and implicit contents not stated in the warranty card are not covered.
- Maxell shall not be responsible for failure due to any damage caused by usage other than described in the instruction manual.
- Maxell shall not be responsible for any loss resulted from malfunction when connecting to interconnecting devices.
- This product is not being designed to be any equipment or device which could be concerned with human life such as medical device, nucleic device, astronomic device, transportation device etc., nor equipment or devices which requires high reliability. In case this product is used for the above equipment and/or systems, Maxell do not responsible for any injuries or fire accident cause by the failure of this product.

Impact of ozone on humans	
Ozone concentration (ppm)	Impact
0.01	People with a strong sense of smell may smell ozone.
0.02	People can smell ozone (and eventually become used to it).
0.06	Environmental reference concentration of photochemical oxidant (Ministry of the Environment)
0.1	People sense a strong ozone smell and the nose and throat are irritated.
	Allowable concentration in a work environment (Japan Society for Occupational Health)

* Referring to the Ozone Handbook issued by the Japan Ozone Association

* The device is designed so that the ozone concentration is 0.05 ppm or less.
(When used in a space that meets the recommended applicable range of operation described in the [Installation] in "4. Usage")

2 Safety Caution

Please strictly follow and use safely.
Explanation to indication.

	Danger	Danger refers to "Misuse that has a high possibility of leading to death or serious injury" ^{*1} .
	Warning	Warning refers to "Misuse which might lead to death or serious injury" ^{*1} .
	Caution	Caution refers to "Misuse which might lead to injury" ^{*2} or damage ^{*3} .

- ^{*1}: Serious injury refers to blindness or injuries, burnt, electric shock, bone fracture, poisoned or injury with after-effect, or resulted in hospitalization or long-term follow-up consultation.
- ^{*2}: Injury refers to burnt, electric shock which do not result in hospitalization or long-term follow-up consultation.
- ^{*3}: Damages refers broad damages to houses or properties and domestic animals/pets.

Key		 stands for prohibited actions when handling the product. Details will be illustrated inside or next to the symbol or with written description next to it. (Example:  Disassembly prohibited)
		 stands for instruction which must be followed. Details will be illustrated inside or next to the symbol or with written description next to it. (Example:  Pulling the plug out of the socket)

 Warning
• Please do not use in a place which cannot be ventilated. • Please use this product with the air outlet separated from more than 30cm. (Please do not place any objects within 30cm from the air outlet) • Please do not move your face close to the air outlet. • Please choose an appropriate mode according to the usage environment. Check the recommended applicable range of operation, and do not use the device in a space smaller than this. → Refer to the recommended applicable range of operation described in the [Installation] in "4. Usage". Usage in the incorrect environment may harm humans or pets, or may lead to damage to property. • Please do not use in location close to oily smoke, flammable gases or metallic dust. It may cause fire or smoke. • Please keep it out of reach of children to prevent electric shock or injury. • When the product is used near small animals, please pay attention to their condition. • Material such as natural resin which ae easy to oxidize could depreciate rapidly when they are kept too close to the product. • Please stop using this product and ventilate the air if you feel a change in your physical condition, such as a headache, and consult a doctor. • If you have a chronic condition such as asthma, consult a doctor before use.

 Danger	
Device, AC adapter, Cable (Common) • Do not repair, disassemble or remodel. This may cause overheating, fire, bursting, leakage, electric shock, or malfunction.	
• Do not contact with water. Do not pour water on the device or dip it into water. This may cause overheating, electric shock, or malfunction.	
• Do not put into fire. Do not put the device into fire or heat it. This may cause overheating, fire, bursting, or leakage. • Do not place in locations in direct sunlight or with abnormally high temperature. This may cause overheating, fire, bursting, or leakage in addition to deterioration of the surface and parts of the device. Do not place inside a closed car, in locations in direct sunlight or near heating appliances such as stoves.	
Device • Do not touch any leaked liquid. If any liquid leaked from the device enters the eyes, do not rub the eyes but wash with clean water, and consult a doctor immediately. This may cause sight loss. • Do not use power input other than the USB port. Use the attached AC adapter for charging. Use of power input other than the USB of 5 V may cause overheating, fire, malfunction, electric shock, or injury.	

Warning	
Abnormalities and malfunction	



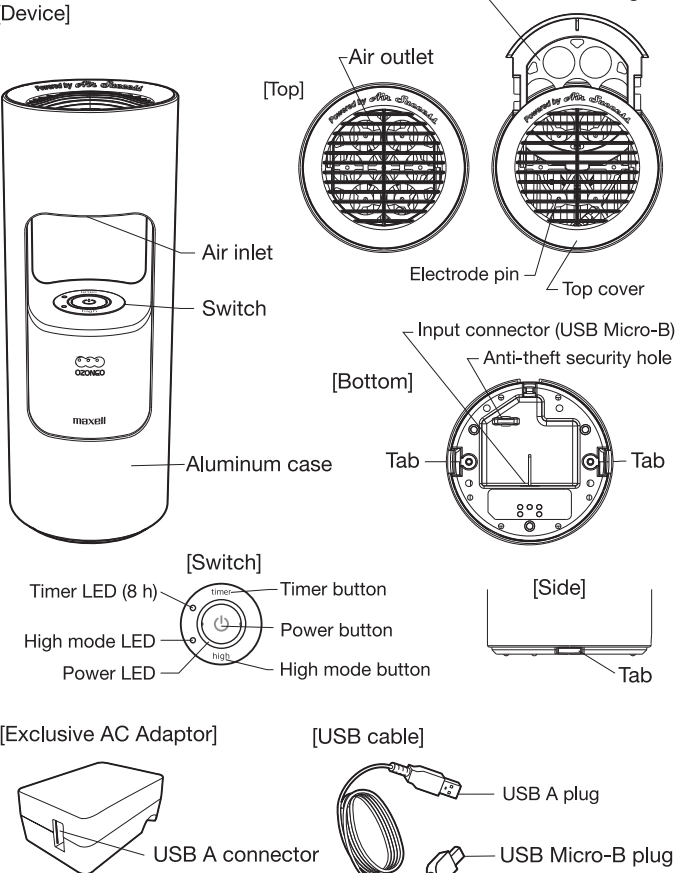
Caution

Setting Up and Use

- **Do not place in unstable locations.**
Do not place on shaky platforms and slanted locations.
Dropping and falling may cause malfunction.
- **Do not place in highly humid or dusty locations.**
Do not place in locations such as bathroom, air humidifier, kitchen and dusty locations.
This may cause overheating, fire, bursting, leakage, or electric shock.
- **Do not place near television or radio.**
If same socket is used for these types of products, this may cause disruption to sounds and images.
Plug the AC adapter in another socket.
- **When dew condensation happens on this product, do not turn on power input.**
Sudden changes in temperature may cause dew of the parts inside. Do not turn on the power input and set the device aside.

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3 Names of parts of the device



[Power LED]

Power supply	Charging condition	Stopping	Operating	Abnormality in operation
AC adapter connected	At charging	Blinking	Slowly blinking*	OFF
	Fully charged	OFF	ON	OFF
When using the built-in battery	—	OFF	ON	OFF

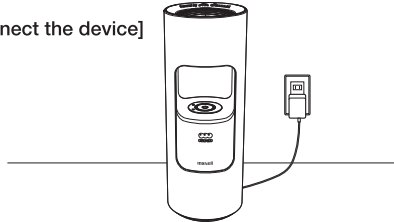
* The brightness changes a little.

4 Usage

[Installation]

The recommended applicable range of operation is a 1- or 2-tatami sized room* in normal mode and a 3- to 8-tatami sized room* in high mode. Please first confirm the size of the area to be used and set up accordingly. Do not use in an area out of the recommended range of operation.
*Suggested standards based on internal experiments
Effects may vary with surrounding environment of use and length of operation time.

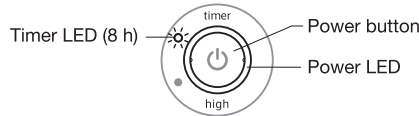
[Connect the device]



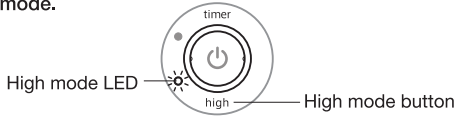
1. Use the attached USB cable to connect the input connector (USB Micro-B) at the base of the device and the exclusive AC adapter.
2. Insert the adapter into the socket fully.
When the adapter is correctly connected, the power LED blinks and charging starts.
(If the battery is fully charged, the LED does not blink.)

[Start operation]

1. Keep pressing the power button (about 2 seconds). The power LED and timer LED will then turn on and the product [normal mode] will start functioning.
(Normal mode and the 8-hour timer are set after turning the power on.)



2. If the high mode button is pressed during normal mode, the high mode LED will turn on and the device will switch to high mode. Another press of this button turns the high mode LED off, and switches back to normal mode.



3. If the timer button is pressed during use, the timer setting is canceled and continuous use starts. Another press of this button turns the timer LED on, and switches back to the timer setting.
4. To stop operation, keep pressing the power button. The power LED then goes off, and the device stops functioning. (If the AC adapter is connected, the LED may blink according to the remaining amount of power.)

* This device may emit a low hissing sound which is normal. When used in locations with high humidity, the sound may become louder.
* Dirt on the electrode ring and electrode pin may lead to instability in operation. In this case, the power LED turns off and the device stops functioning.

Warning	
• Please do not use in a place which cannot be ventilated. • Please choose appropriate mode according to the using environment.	

[Using the device with the built-in battery]

1. Charge the device.
2. Remove the USB cable from the device, and install the device in the location where it will be used.
3. Start operating the device. (For how to operate the device, refer to [Start operation].)

Standard charging time (when stopped)		About 4.5 hours
Standard usage time	Normal mode	About 24 hours
	High mode	About 8.5 hours

* Carefully check the direction of the connector, and then insert it. If the connector is inserted in the wrong direction, it may be damaged.
* Even if there is a long period of non-use, charge the device every 6 months. If self-discharge completes, the device may not be charged.
* The charging time and usage time stated are the approximate standard times. They may vary according to the surrounding environment or conditions of use.

5 Maintenance

Before maintenance

You must stop the device before maintenance, and unplug the AC adapter and remove the USB cable from the device.

[Clean the device]

Soak a cloth with neutral cleaner or water and wipe away the dirt. Then use a dry soft cloth to wipe away the water. Do not use benzene, thinner and alcohol.

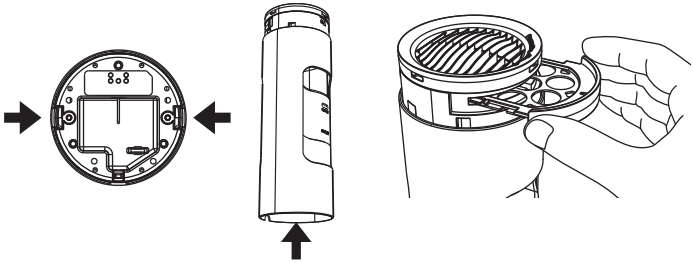
[Clean the electrode ring units and the electrode pin]

Dirt on the electrode ring and electrode pin may lead to instability in operation. In this case, the power LED turns off and the device stops functioning. Therefore, perform maintenance work on the device periodically for comfortable use. It is recommended to carry out maintenance once or twice every month, but this may vary with the usage environment.

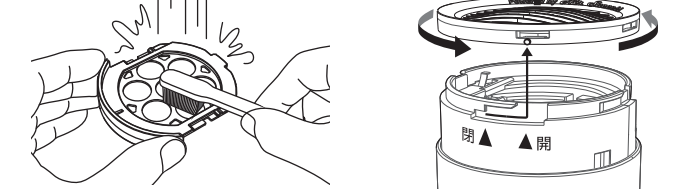
Caution
• During regular maintenance, be careful on not stabbing the finger or get injury. • Be careful to avoid injury caused by touching the tip of the electrode pin. • Do not touch the electrode pin with your finger. Make sure not to bend the pin. • Do not damage the electrode ring units during cleaning. • Install the top cover, electrode ring units, and aluminum case securely. Improper installation may cause improper operation and malfunction. • If the device is used while the electrode ring or electrode pin remains dirty, it may be difficult to remove the dirt. If removal of dirt becomes difficult, use a kitchen-use neutral cleaner and a toothbrush to clean these parts.

Cleaning steps

1. Turn off the device; remove the AC adapter from the socket and the USB cable from the device.
2. Remove the tab at the bottom, and slide the aluminum case.
3. Remove the electrode ring units.



4. Rinse the electrode ring units with water and clean with cotton buds or a toothbrush.
5. Remove the top cover.



6. Use cotton buds or similar to wipe away the dust and dirt on the electrode pins.
7. Install the top cover.



8. Dry the electrode ring units fully, and then install them.
9. Slide the aluminum case to return it to the original position. (Check that the aluminum case is fastened with the tab.)
10. Connect the USB cable and AC adapter and start use.

6 Troubleshooting

If the following solutions cannot solve the problem, please contact the seller or maxell customer service center.

Problem	Cause	Solution
The device does not operate (the power LED is off).	There is no power input. There is no power remaining.	• Use the exclusive AC adapter. Charge the device. • Ensure good connection of the adapter and the cable. ⇒ Refer to 4 .
	The electrode ring units or top cover not installed properly	Install properly the electrode ring units and top cover ⇒ Refer to 5
	Dirt on electrode ring unit or electrode pin	Clean the electrode ring units and electrode pin ⇒ Refer to 5
The power LED does not blink when charging.	The ambient temperature is outside of the usage temperature range when charging.	Charge the device in a location where the ambient temperature is within the usage temperature range.
	After a long period of non-use, the device has completely discharged.	The device is not available. Charge the device every 6 months to prevent it discharging completely.
Device produces strange sound	Dirt on electrode ring unit and on electrode pin.	Clean the electrode ring unit and electrode pin ⇒ Refer to 5

7 Specifications

[Device]

Input voltage/current: 5 V DC/Max. 1 A
Outer dimensions: 70 (W) x 70 (D) x 186 (H) mm
Weight: About 370 g
Generated ozone quantity: Normal mode: 0.3 mg/h, High mode: 0.8 mg/h
Power consumption (during charging): About 5 W
Power consumption (fully charged): About 2.2 W
Built-in battery: Lithium-ion battery
Operating temperature range: 0 to 40°C (when no dew is present)
Charging temperature range: 5 to 40°C
Usage time (using the built-in battery): Normal mode: about 24 hours, High mode: about 8.5 hours
Charging time: About 4.5 hours
Number of recharges: Max. 500

[Exclusive AC adaptor]

Power supply: AC100 ~ 240V 50/60Hz
Power output: DC5V/1A

[USB cable]

Length: about 1.8m

For details of effects on deodorize, viruses or bacteria, please visit the website:
<http://www.maxell.co.jp/consumer/deodorization/mxap-apl250/>

8 Disposal of this device

 Li-ion	The rechargeable battery built into the device is recyclable. However, the customer must avoid removing this rechargeable battery themselves. Please contact the Maxell Customer Service Center or observe the local laws and regulations for disposal.
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9 Warranty and after-sales services

- Warranty card
Please read the warranty card carefully. Then keep the warranty card and proof of purchase (such as receipt) properly.
Period of warranty lasts for 1 year after the date of purchase.
- Enquiries on the product
If you have any enquiries on the product, please contact the following: