



出入口設置用除菌液噴霧裝置

# REMOVE

## USER'S MANUAL

Thank you for purchasing the disinfectant spray device "REMOVE" for installing doorways.  
Before using REMOVE, please read this "User's Manual" carefully to ensure correct use.



M.K. KIKI CORPORATION

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## 1. Introduction.

This device sprays a disinfectant solution on users who enter the room from the entrances and exits of facilities and buildings, elevators, etc., sterilizes viruses, bacteria, pollen, etc. attached to users and their clothing, to prevent them brought into the room.

This device has the following features.

- 1) Two types of operation modes, "shower mode" and "intermittent operation mode", can be selected according to the installation location. And it can make two operation mode work at both time.
- 2) "Lobby mode" and "Room mode" with different spray angles can be selected according to the installation location.
- 3) The low center of gravity and four free-direction casters make it difficult to tip over.
- 4) Since the vertical movement speed of the spray nozzle can be set arbitrarily, the spray amount (density) can be adjusted.
- 5) It can freely set the user position (Distance from the front of the device to the user) which start shower spraying.
- 6) The blue LED near the spray nozzle allows to see the sprayed disinfectant.
- 7) The synthesized voice guidance function allows the user to be bathed to the disinfectant solution without omission.
- 8) The warning sound and the red LED can inform when to replenish the disinfectant solution.
- 9) Since the spraying is a nozzle method, the type and pH of the liquid to be sprayed do not matter. (However, strong acid and strong alkaline solution are not allowed)

## 2. Precautions for use

Please read this instruction manual carefully in order to use this device better.

- Install this device on a flat surface and do not tilt it.
- Do not wipe this device with benzene or thinner, or apply volatile substances such as pesticides.
- Avoid operating the unit in direct sunlight or in humid places.
- Use this unit in a normal indoor environment (5 ° C-40 ° C, 80% RH or less).
- Do not move this device during spraying.

## 3. Safety precautions

(Be sure to observe)

Please read this "Safety Precautions" carefully before use to ensure correct use.

Please be sure to follow the precautions shown here as they are intended to prevent damage to user, other people, and property.



注意

This display is "when it is assumed that there is a possibility of serious injury or property damage is expected" if it is handled improperly.



禁止

This display is a "prohibited" content that should never be done, as it may cause death or serious injury" if handled improperly.



指示

This display is a "forced" content that must be executed.

## 禁止

	Do not give strong impact to this machine or throw it. It may cause a malfunction or fire.
	Do not cover or wrap it with a cloth or duvet during use. The heat may build up and cause a fire or malfunction.
	Stop using if there is a strange odor, heat generation, discoloration, deformation, etc. during use.
	Do not install this machine in a humid place such as a bathroom. It may cause overheating, electric shock, malfunction, etc.
	Never remove the cover of this machine or modify it. It may cause an electric shock, overheating, ignition, or malfunction.
	Keep fingers away from the moving parts of the nozzle of this machine. Fingers may get caught in the moving parts and it may be injured.

## 指示

	Do not continue the spray operation longer than necessary. The room may become over-humidified, which can cause serious problems.
	Never use it for anything other than a household power supply AC100V. It may cause fire, electric shock, or malfunction.
	Do not connect or disconnect the power cord with wet hands. It may cause an electric shock accident.
	Do not install or operate this machine near a medical device. It can cause medical devices to malfunction and cause serious problems.

## 注意

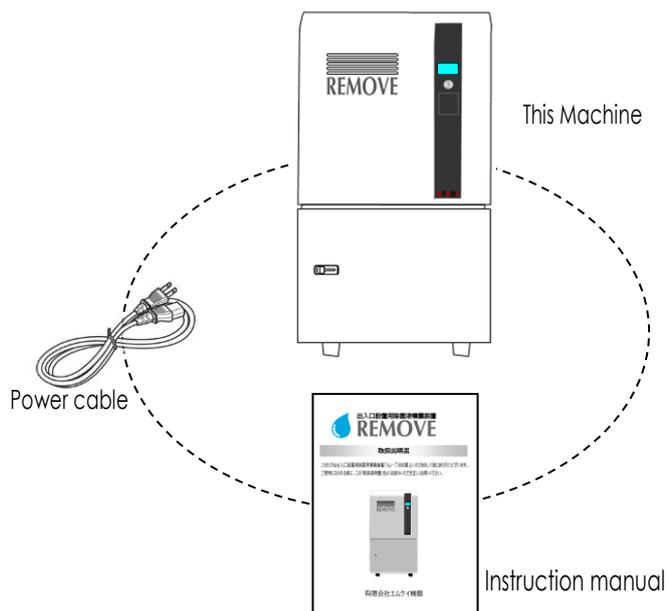
	Please install it out of the reach of children. There is a risk of electric shock or injury.
	Do not store or install in a place with high humidity, dust, or high temperature. It may cause a malfunction.
	Do not install in direct sunlight or near heating equipment. It may cause malfunction, malfunction, fire or electric shock.
	If there is heavy lightning, unplug the power cord from the outlet. In the unlikely event of a lightning strike, it may cause a fire or electric shock.
	Do not forcibly move the nozzle moving parts by hand when the power is off. Abnormal voltage may be generated inside the machine, which may cause a malfunction.

## 4. Before using

Please check the contents of packing.

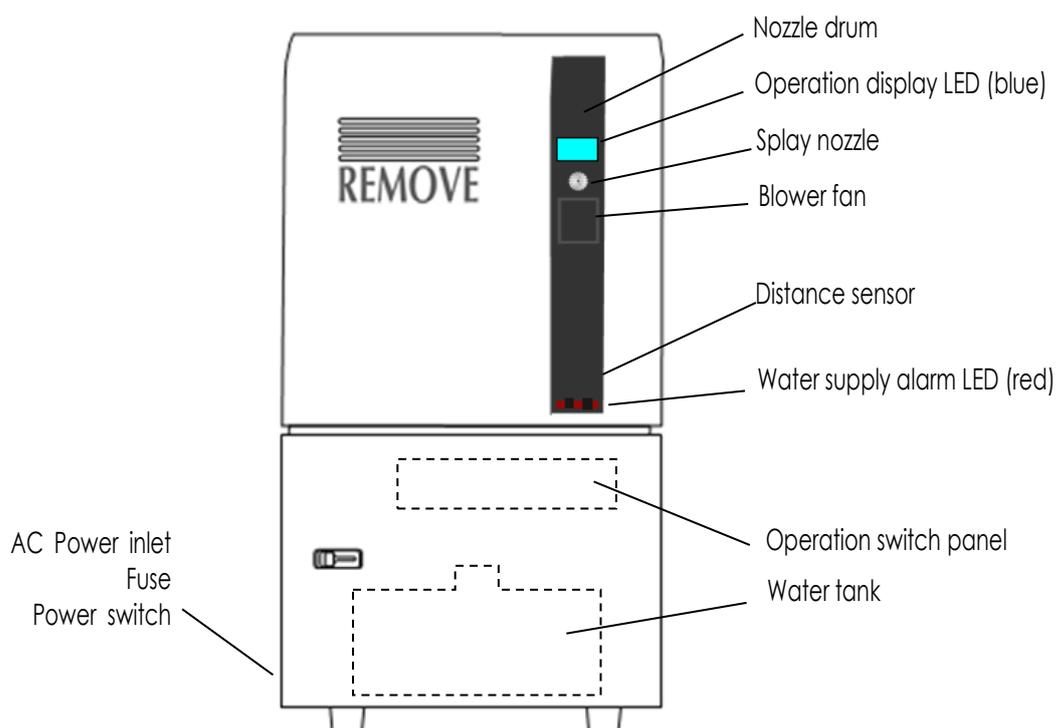
Before using, please make sure that you have all of the following items.

If you find any shortage, please contact the store where you purchased the product.

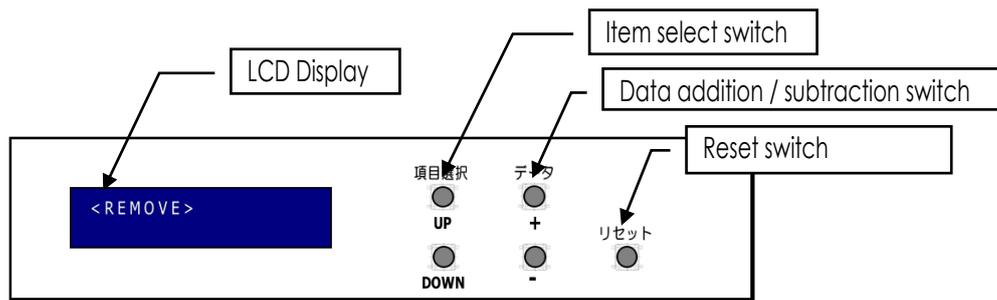


## 5. Name of each part

The names of each part of this device are as follows.



## 6. LED display and operation panel description



- Operation display blue LED (located at the top of the front of cabinet)  
Lights when spraying disinfectant.  
※ If it keeps blinking while standby, the distance sensor on the front of cabinet may contain ambient light, Since it may cause of mis operation, change the orientation of the cabinet so that it stops blinking.
- Water supply alarm LED (located in the center of the front of cabinet)  
When the disinfectant solution in the water tank contained in this device is empty, the LED flashes with a warning sound.
- "Item select" switch  
When changing the operating parameters, press this switch.  
Each time you press this switch, each parameter is displayed on LCD display in sequence, so press "UP" or "DOWN" repeatedly until the parameter you want to change is displayed on the screen.
- "Data" switch  
The parameter data selected with the "item select" switch is displayed on LCD display. Press this "Data" switch to change the contents of parameter data.  
※ If you leave it as it is after making changes, this device will automatically change and save the data after a few seconds, and the operation parameter change work will end.
- "Reset" switch  
When a water supply alarm or motor alarm occurs, press this switch to cancel the alarm.  
※ When the water supply alarm occurs, refill the disinfectant solution in the water tank, and then press this "reset" switch. After that, this device restarts the water supply pump and cancels the water supply alarm when water supply is completed.

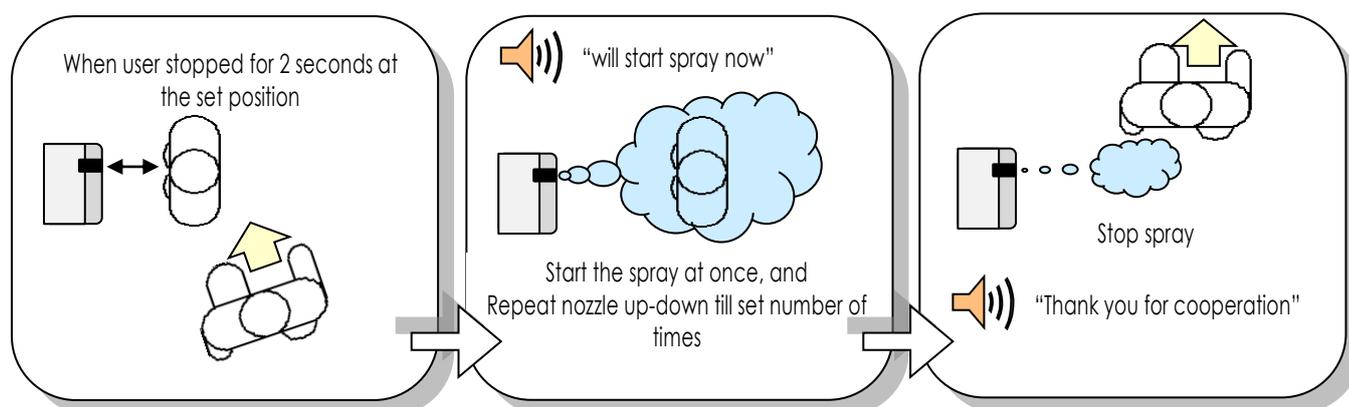
## 7. Explanation of operation mode

This device has two operation modes.

1. Shower mode
2. Intermittent spray mode

### ■ Shower Mode

"Shower mode" is a mode in which the mist of disinfectant is sprayed from the toes to overhead to user who approached the front of cabinet to a preset distance.



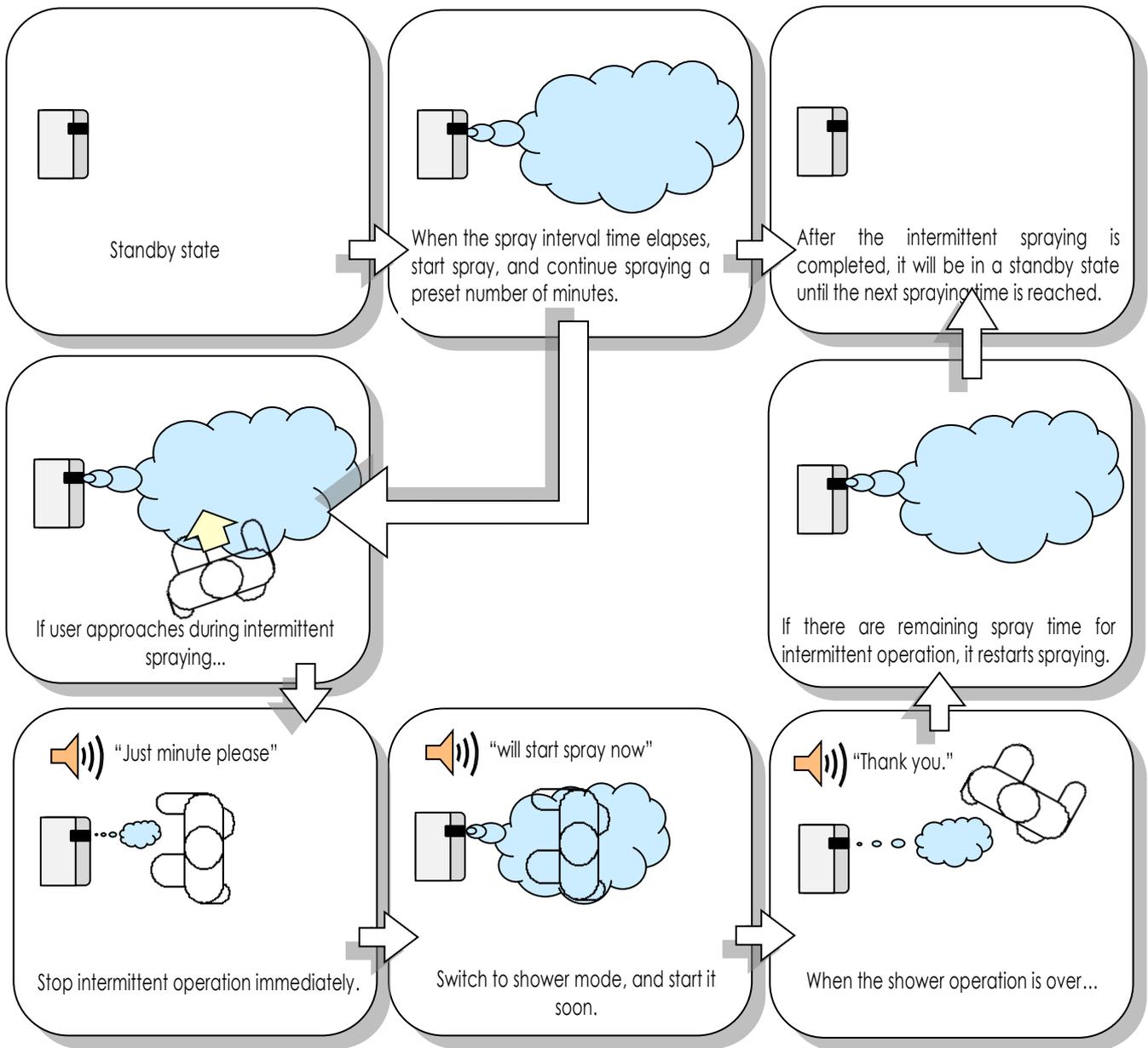
■ The operating parameters related to "shower mode" are as follows

ITEM	DATA	UNIT	CONTENTS
Number of the nozzle up-down times	2 / 4	times	It is the number of times that spraying from user's feet to overhead is repeated in one shower operation.
Nozzle movement speed	1~5	—	The lower the number, the greater the amount (density) to user back in the mist.
User detection distance	40~85	cm	Distance to user that starts this operation
Installing environment designation	lobby/room	—	It is the adjustment of the spraying angle. If it set it in "room", the spray angle will be smaller.
Blower fan air volume	1~10	CFM	The higher number, the higher air volume.
Voice guidance volume	-12~+12	dB	7 levels of adjustment.
Voice guidance class 1 vocalization	ON / OFF	—	"Just minute" "will start spray now" "Thank you for your cooperation"
Voice guidance class 2 vocalization	ON/ OFF	—	"Please face your body to left or right side" "Please face your body to back" "Hello. How is it going"

※ Regard to spraying area at this mode, refer to "10. coverage area of spraying mist".

■ Intermittent spray mode

"Intermittent operation mode" is a mode in which spraying is repeated for a preset number of minutes at preset interval times.



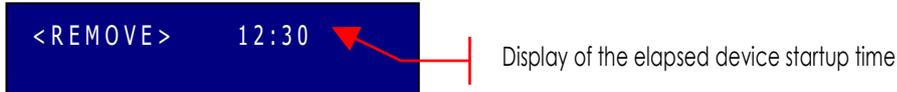
■ The operating parameters related to "intermittent mode" are as follows

ITEM	DATA	UNIT	CONTENTS
Intermittent operation interval hours data	0~23	hour	It is the number of hours of spray interval time.
Intermittent operation interval minutes data	0~59	minute	It is the number of minutes of spray interval time.
Spraying minutes	0~30	minute	It will be the number of minutes to spraying the disinfectant solution.

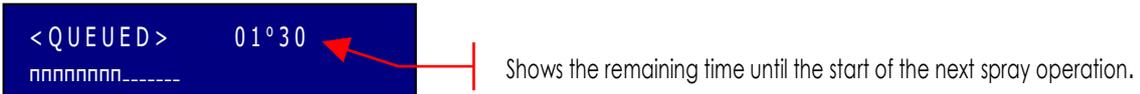
## 8. About LCD screen display

The display on the LCD screen changes depending on the situation.

- It displays when intermittent operation is not set during operation standby.



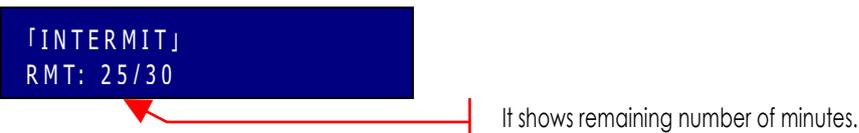
- When it waiting for intermittent operation, it displays for expected next start time.



- It displays while driving in shower mode.



- It displays while driving in intermittent mode.



- It displays when the position of the internal motor is being corrected.



- It is displayed when an abnormality occurs in the internal motor.



※ If this error occurs, handle it by referring to the chapter on alarms in item 11.

## 9. The parameters are

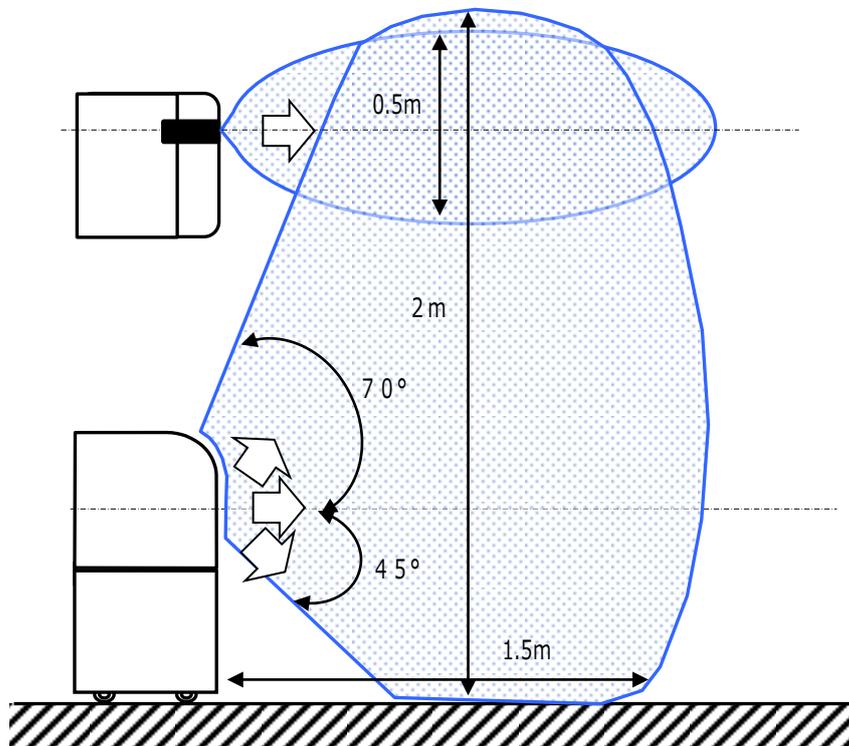
This device has the following operating parameters, and when you press the "Item Select" switch on the operation panel, the following screens are displayed in order.

Select a parameter with the "Item select (UP)" / "Item select (DOWN)" switch, and change the parameter content with the "Data (+) / (-)" switch.

INTM. interval. >00hour 30min	Set the number of hours of spray interval time in intermittent operation mode. (From 0 to 23 hours)
NTM. interval. 00hour. >30min	Set the number of minutes of spray interval time in intermittent operation mode. (From 0 to 59 minutes)
INTM. spraying. >10min (0-30)	Set the number of minutes of spraying in the intermittent operation mode. (From 0 to 30 minutes)
NZL. updown times >2times (2t/4t)	Set the number of times that spraying from user's feet to overhead is repeated in one shower operation. (2times or 4 times)
NZL. moving speed >5. (1-5)	Set the vertical movement speed of nozzle. (From 1 to 5)
SNS. detecting D. >60cm. (40-85cm)	Set distance to user for starting shower operation. (From 40cm to 85cm)
Install location >Lobby	Set installing environment. (Lobby or Room)
BLOWER. air flow >10CFM. (1-10)	Set the air volume of the blower fan under the nozzle. (From 1 to 10)
SOUND1/2 volume. >-3dB	Set voice guidance volume. (7 steps)
SOUND1. switch. >ON	The vocalization switch for voice guidance class 1 (ON/OFF)
SOUND2. switch. >OFF	The vocalization switch for voice guidance class 2 (ON/OFF)
LANGUAGE select. >ENGLISH	Language choice. (Japanese/English)

## 10. Coverage area of spraying mist

The disinfectant solution sprayed from this device covers the range of height 2m, width 0.5m, length 1.5m.



## 11. About the alarm

This unit has two types of alarms.

### 1. Water supply alarm

When the water tank runs out of spray liquid, an alarm sounds and a red LED flashes to notifying.

When the water tank is completely replenished, press the "Reset" key on the operation panel to stop the alarm, and the water pump will automatically restart and restart water supply.

### 2. Motor alarm

The nozzle may stop at an irregular position due to heating of the internal motor. In this case, you will be notified by an alarm sound, blinking red LED and LCD screen display, but when this alarm occurs, immediately turn off the power switch of this unit.

After waiting for a while (about few minutes), slowly turn the nozzle drum about 90 degrees in the direction which can moving up or down by hand from the front of cabinet.

After that, when the power is turned on again, this device automatically corrects the position and resumes operation.

## 12. Rating

The rating of this device is as follows.

Atomization method	2-Fluid nozzle
Spraying capacity (maximum)	500mL/hour
Power source	AC100V 50·60Hz
Power consumption (standby)	3W
Power consumption (maximum)	50W
Storage water tank capacity	5L
Operating temperature range	5°C~40°C (No condensation)
Size	W300×D250mm×H650mm
Weight	15Kg approximately