

## **User Manual**

Laser 360 Robot Vacuum & Mop with auto disposal station



Model: RV4500 Batch: PR4843



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#### Safety precautions

#### Usage restrictions

- · To avoid the danger of suffocation, keep all plastic bags away from babies and children.
- · This product is intended for household use only, not for outdoor surfaces (such as open balconies), non-floor levels (such as sofas), etc.
- $\cdot$  Do not use this product on a surface where there is no guardrail protection (such as duplex buildings, open balconies, and on top of furniture).
- $\cdot$  Do not use it in an environment where the temperature is higher than 40°C, lower than 0°C, or there are any liquids and viscous objects on the ground.
- · Before use, remember to lift any cables from the floor to prevent cable-related problems.
- Please put away the fragile items and sundries placed on the ground (such as vases, plastic bags) to avoid the main machine being blocked or colliding during operation and causing damage to valuables.
- · Do not allow persons (including children) who lack physical, sensory and intellectual capacity or
- experience to use this product without supervision or guidance.
- · Do not let children use this product as a toy.
- · Do not place the cleaning tool of the main brush in a child-accessible area.
- · Do not let your hair, fingers and other parts close to the vacuum port of the machine when the machine is working.
- · Do not use this product to clean up any burning objects (e.g. unextinguished cigarette butts).
- · Do not let the host pick up hard or sharp objects (such as decoration waste, glass, iron nails, etc.).
- $\cdot$  Do not use the protective cover of the laser ranging sensor, the upper cover of the main unit and the collision buffer as a handle to carry the machine.
- To clean and maintain the main unit and the charging dock with the dust box, first turn off the machine, pull out the plug from the socket, and disconnect the power supply. Do not immerse the main unit and the charging dock with the dust box into the water to wash or rinse it with water.
- · Do not wipe any part of the product with a damp cloth or any liquid.
- · Do not use the mopping mode on a carpeted floor.
- Please use this product in accordance with the instructions in this manual. Any loss and damage caused by improper use shall be borne by the user.

#### Battery and charging

- Incineration of the product is prohibited even if the product is severely damaged, as the battery of the product may explode.
- Do not use any third-party batteries, chargers or charging docks.
- Do not disassemble, repair or modify batteries and charging dock without permission.
- Do not place the charging dock near heat sources (such as radiators).
- Do not wipe or clean the electrode of the charging dock with a damp cloth or wet hands.
- Do not throw away discarded batteries at will. Please send the battery to professional recycling organisations.
- If the power cord becomes damaged, it should only be replaced by the manufacturer, the maintenance department, or an authorized service center.
- If you need to transport the product, please make sure that the main unit is turned off, and it is recommended to use the original box.
- Do not pour water into the device, or immerse the device in water.

- If the product is not being used for an extended period, ensure that you turn off the main unit after it's fully charged. Store it in a cool, dry place, and remember to recharge it at least once every three months. This will help prevent battery damage caused by excessive discharge.
- The battery must be removed from the appliance before disposing of the appliance.
- To take out the battery, you need to use the correct tool. First remove the bottom battery cover screw, then open the product battery cover, unplug the battery connection terminal and take out the battery from the battery box.
- The appliance must be switched off when the battery is being removed.

This product includes a Class 1 laser. The lidar of this product complies with the Class 1 laser safety standard of GB 7247.1-2012/1EC60825-1:2014, and will not produce dangerous laser radiation to the human body.



The illustrations of products, accessories, user interface, etc. in this manual are schematic diagrams and are for reference only. Due to product updates and upgrades, the actual product may be slightly different from the schematic diagram, please refer to the actual product.





Robot

Charging dock with dust box





Mop holder

Mopping pad





User manual

Dust bag

Side brushes



#### Accessories installed on the robot



Main brush cover



Main brush



2-in-1 water tank

HEPA filter



Side brushes

### **Product Parameters**

#### Robot Vacuum Cleaner

Product name	Robot Vacuum Cleaner
Model	RV4500
Product size	345mm x 345mm x 76mm
Input	DC 24V === 0.6A
Rated power	50W
Working voltage	14.8V ===
Battery type	Lithium-ion battery pack
Battery capacity	5200mAh
Wireless connection	Wi-Fi IEEE 802.11b/n 2.4GHz

#### Charging dock with dust box

Output	DC 24V === 2A
Rated power	950W
Product size	260mm x 211mm x 347mm

Accessories installed on the charging dock with dust box

#### Dust bag

Note: Dust bags cannot be recycled, please replace them regularly.



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#### Product introduction

#### 1.Main machine

Power on/off/one key start and stop
 Press & hold () key for more than 3 seconds to turn on or turn off the robot vacuum.
 Short press () key to start cleaning or pause operation.

LED indicator Green: normal operation/standby/charged Red: Low battery/fault alarm/charging

#### 02 Automatic recharge/App distribution network

• Short press 🛞 key to start/stop automatic charging.

• Quick WiFi Network Setup: Press and hold the 🛞 button for over 3 seconds, and the vacuum will emit a confirmation sound, signaling the start of rapid network distribution. The power button's green light will flash rapidly, indicating entry into fast network configuration mode.

• App Hotspot Network Setup: Press and hold the 🛞 button for over 6 seconds, and the vacuum will emit a second confirming sound. The voice prompt "Start AP network configuration" will follow, accompanied by the power button's rapid green light flashing. This signifies that the vacuum has entered the app hotspot network configuration mode.





#### Indicator description

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Machine status	Power button display ()	Recharge button display 🛞
Standby	Green light always on	Light off
Charging	Light off	Pulsating red light
Pause	Green light always on	Light off
Working	Green light always on	Light off
Recharging	Light off	Red light always on
Abnormal	Pulsating red light	Light off
Turning on	Pulsating green light	Light off
Turning off	Light off	Light off
Wi-Fi disconnected	Pulsating green light	Light off
Wi-Fi connected	Green light always on	Light off
Connect to a Wi-Fi	Pulsating green light	Light off

#### 2. Auto disposal station with charging dock



3. Indicator description of auto disposal station

Charging dock status



Dust bags can be purchased from lenoxx.com.au/products/rv4500-dust-bags or by scanning the QR code:



#### 4. Remote controller



#### **Remote controller**

#### 1. Standby 🕑

Press this key to enter sleep mode; press (1) key to restart the machine; If the machine is not operated within 3 minutes, it will automatically enter sleep mode.

2. Auto cleaning (m)

Press this key to start cleaning automatically; Press ()) to pause the machine if necessary.

3. Automatic charging

Press this key to automatically find the charging base for charging.

4. Pause (III)

Press this key while the machine is operational to pause it. Press the key when the machine is in sleep mode to wake it up.

5. Direction

Forward	Press this key to move the machine forward.	Reverse	Press this key to move the machine back.
( Left	Press this key to move the machine left.	► Right	Press this key to move the machine right.

#### 6. Suction power

During operation, press this button to select Quiet or Powerful suction.

7. Water volume control , 💏

During operation, press this button to control the volume of water used for mopping.

#### Auto disposal station with charging dock

Place the charging dock with dust box against the wall on a flat ground, insert the power plug into a socket that meets the requirements, and turn on the power. Make sure that there are no obstacles within 1.2 meters in front of the charging dock with dust box and within 0.5 meters on both sides.



#### How to use

#### Charge the robot

Press and hold () button for 3 seconds to turn on the robot, and then press 🛞 button to make the robot automatically recharge. The robot will enter the ready-to-work state when fully charged.



- Fully charge the robot before first use.
- Before starting the cleaning task, tidy up the wires and items on the ground to avoid cable entanglement and collision in the cleaning process.
- It is recommended that the robot starts cleaning task from the charging dock with dust box.
- When the power is insufficient during the cleaning process, the robot will automatically return to the the charging dock with dust box. Once it has enough power, it will go back to where it stopped and continue cleaning.

#### Power on/Power off/Pause

Press and hold (1) button for 3 seconds to turn on the machine. The power indicator's green light will flash for 5 seconds, then remain on. The device will voice "Welcome to use our Robot vacuum cleaner, I am glad to serve you." The robot will then be in standby mode.

For default cleaning mode, press () button. Alternatively, press and hold 🛞 button for 3 seconds to activate the WIFI network.

When the robot is stationary, press and hold the  $\bigcirc$  button for 3 seconds to turn off the machine, the power indicator light will turn off. During the cleaning process, press  $\bigotimes$  button to enter the recharge mode, and press  $\bigcirc$  button to pause the cleaning task.

The robot will enter sleep mode if there is no operation for 10 minutes; in the sleep mode, short-press any button to wake up the machine.

During charging, the robot cannot be turned off and will not enter the sleep mode.

#### Automatic recharge/manual recharge

When the battery is low during cleaning, the robot will automatically start recharging. Once cleaning is complete, the robot will also automatically recharge.

While cleaning, you can briefly press  $\bigcirc$  button to pause the robot. To return the robot to the charging dock with the dust box for both recharging and dust collection, simply give a short press to  $\bigotimes$  button.

#### Default cleaning mode

The default mode is the whole house cleaning mode. Once the app is connected, additional modes can be selected from within the application.

#### Pause robot for water tank refill or mop cleaning

Short-press () button to pause the robot, remove the mopping module, add water or clean the mop, then install the mopping module back, and short-press () button again to continue cleaning.

#### Robot status alerts and sleep mode

• In case of robot malfunction, a voice prompt will sound, accompanied by a flashing red light on the power indicator. To resolve issues, consult the "Troubleshooting" section.

• If no activity occurs for 10 minutes during a fault state, the robot will enter sleep mode automatically.

#### App connect

Scan the QR code below, or search for "Smart Life" app in the app store, download and install it. Open the app, click + icon in the upper right corner of the home page, and follow the prompts to add devices.



Due to upgrades and updates of the app, the actual operation may be slightly different from the above description, please operate according to the current instructions in the app.

#### Replace the dust bag

When the dust bag becomes full, the indicator light (iii) will turn white and stay on, while the app will also notify you. Make sure to replace the dust bag promptly.





Throw away the dust bag

Open the top cover

Pull the dust bag handle upwards and take out the dust bag



Close the top cover

Put in a new dust bag

#### Clear dust tube

If the indicator light of the charging dock with dust box is constantly red, it's advised to disconnect the power plug, flip the dust box upside down, and inspect if any foreign objects are blocking the dust tube. If there's a blockage in the dust tube, follow the diagram on the right to remove the dust tube's transparent cover using a screwdriver, and clear away any foreign objects.

Handle the dust box with care. Do not force disassembly or assembly.

After cleaning the dust tube, put it back in place.



#### Clean the infrared lens/sensor head

Wipe the infrared lens & sensor heads gently with a clean, soft, dry cloth. It is recommended to clean it once a month.



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The fan filter is located under the dust bag. When the dust accumulates, wipe it with a clean, soft dry cloth. It is recommended to clean it once a month.



#### Clean the main brush

The main brush is a consumable item and should be cleaned at least once a week. It is recommended to replace the main brush every 6 or 12 months to ensure the cleaning quality.

1. Flip the robot, then press the latch on the main brush cover to remove both the cover and the main brush.

2. Use a cleaning tool to cut the entangled hair on the main brush, and use the cleaning brush on other end of the cleaning tool to clean the main brush.

() When turning over, be cautious of impacts to avoid damaging the lidar.

Main brush cover

Clean/replace the side brush

Remove the side brush.



Install the side brush back in place after cleaning,

Remove the side brush

Install the side brush

1 The side brush is a consumable item. Please replace it every 3-6 months to ensure the cleaning quality.

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or install a new side brush.

#### Cleaning the sensor

It is recommended to gently wipe each sensor with a clean, soft, dry cloth every week to ensure normal use of the machine.



#### Clean 2-in-1 water tank

Press and hold the release button of the 2-in-1 water tank, and simultaneously pull it out.

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Press the buckle of the dust box to open the dust box.



#### **Battery Maintenance**

1. The robot has a built-in high-performance rechargeable lithium-ion battery pack. For optimal battery performance, keep the battery charged at all times.

2. When the machine won't be used for an extended period, turn it off, store it, and make sure to recharge the battery at least every three months to prevent overdischarge damage.



Remove the filter





Remove the filter holder.





#### Use a cleaning brush to remove debris from the filter and filter holder. Clean the dust box with running water.



The filter is a consumable item. It is recommended to replace it every 3-6 months.

#### Open the cover of the water tank and add water.



Purified water is recommended.



Turn the 2-in-1 water tank over and remove the mop for

replacement or cleaning.

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- Always start mopping with a clean mopping pad. A dirty mopping pad will affect mopping effectiveness.
- Remember to remove the mopping pad for cleaning and let it dry before putting it back. Avoid cleaning it while it's connected to the 2-in-1 water tank to prevent the filter element from becoming blocked with dirty water.
- Consider replacing the mopping pad every 3 months to maintain cleaning quality.

#### Troubleshooting

In case of robot malfunction the power indicator will flash red. Additionally, the robot will provide voice prompts for certain faults. Consult the table below to troubleshoot and address the problem.

Voice prompts/ problem	Possible reason	Solution
Please check if the radar is stuck	Lidar is blocked or stuck	Remove obstacles or move the robot to an open position and restart
Please check if the bumper is stuck	Bumper sensor is stuck	Clean up foreign objects around the bumper
Please wipe the cliff sensor Startup out of danger zone	The cliff sensor is triggered after starting the robot	Please wipe the cliff sensor and move to a flat open place to start
Please check if the main brush is stuck	Main brush is stuck	Clean the main brush
Please check if the side brush is stuck	Side brush is stuck	Clean the side brush
Please check if the main wheel is stuck	Main wheel is stuck	Clean the main wheel
Install the water tank and start again	The 2-in-1 water tank is removed	Install the 2-in-1-water tank and filter back in place
Low battery, start recharging	Low battery during cleaning process	Low battery, please charge before use
Fan abnormal	Fan abnormal	Please turn off the robot and try to restart again
Please wipe the wall sensor on the right side	Wall sensor error	Please wipe the wall sensor
Radar cover is squeezed	Radar cover is stuck	Lidar is pressed or stuck, please move to a new location to start
Battery damaged or not installed	Battery error during charging	The battery temperature is too high or too low, please wait until the battery temperature is normal before use
Can not turn on the machine	Low battery or abnormal temperature	Low battery, please charge before use; if the temperature is too low (below 0°C) or too high (above 50°C), please adjust the temperature
Can't charge	<ol> <li>The charging dock is not powered</li> <li>The charging sensor head is dirty</li> <li>The charging sensor head is in poor contact</li> </ol>	<ol> <li>Please confirm that the charging dock is connected to the power supply.</li> <li>Regularly clean the charging sensors of the robot and the sensor head of the charging dock.</li> <li>Please eliminate the poor contact caused by the side brush or other foreign objects. You can try to manually relocate the robot.</li> </ol>
Recharging failed, can not find the charging dock	The charging dock is blocked or is too far away	Please put the charging dock in an open area; please put the robot near the charging dock and try again
Abnormal operation	Main brush/side brush is obstructed by tangled objects	Please turn off the machine and clear the tangled objects

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Voice prompts/ problem	Possible reason	Solution
Decreased cleaning ability or dropping dust	The dust box is full or the filter is clogged or the main brush is entangled	Please clean the dust box, filter screen and main brush
Scheduled cleaning does not work	Low battery	Please keep the remaining power more than 15% before starting the scheduled cleaning, and keep the battery charged all the time
Unable to connect to app	Wi-Fi network error or Wi-Fi password error or app error	Please make sure the robot is in a good Wi-Fi signal area; re-enter the Wi-Fi password or reset the robot; update the app and try again
The mopping module does not produce water or the water output is low	The water level in the tank is low or the mop is too dirty or the mop holder is not in place	Please check whether there is enough water in the water tank; please clean the mop; please install the mop correctly according to the instructions; check whether the water outlet is blocked by clogging objects, and pay attention to adding clean water without impurities
The mopping module produces too much water	The water tank cover is not in place, and the outlet water quantity is adjusted to the maximum level	Please confirm that the water tank cover is installed in place; adjust the appropriate amount o water in the app; fill the water tank and check if there is any leakage issue
Insufficient battery level during cleaning, but not continuing from go back to where it stopped after recharging	The main unit is in Do Not Disturb mode or was manually sent to recharge	Please confirm in the app that the robot is not in Do Not Disturb mode, as in this mode it will not continue the cleaning task; If the robot is manually sent to recharge, the machine will not continue the cleaning task. Check if the app breakpoint resume scanning is enabled.
Cannot return to the charging dock in the fixed-point cleaning mode or when the robot has been relocated	Robot creates the map again or moves too far	The robot will create the map after fixed-point cleaning or long-distance movement. If the charging dock is far away, it may not be able to recharge automatically. Please manually put the robot into the charging dock for charging.

When an abnormality occurs during the operation of the auto disposal station with charging dock, the corresponding icon on the display screen of the auto disposal station with charging dock will light up, and the app will also prompt you. Please refer to the below table to try to solve it.

Voice prompts/ problem	Possible reason	Solution
Dust collecting failed	Dust bag is not installed properly	Please install the dust bag in place
Dust bag is full or clogged	Dust bag is full or blocked	Replace the dust bag, and clean up the charging dock with dust box(suction port, dust tube, fan filter, etc.) in time

# **APP Operation Guide**

1. Turn on the phone camera, scan QR code to download the " Smart Life" APP.

2. Search "Smart Life" in Apple and Google or Samsung application market And download the APP.

Before using this feature please make sure Your phone has been successfully connected 2.4G WiFi and turn on the phone "BLE".





5 Make sure the name of your home WiFi, and enter the WiFi password and click on NEXT (note: only 2.4G WiFi is available), as shown in the figure.



To connect your mobile phone to the device's hotspot, choose the hotspot named as "SmartLife" to connect to the network.



After hearing the voice prompt, click on "Next" when power button flashes slowly. Note, as shown in the figure, you can choose Bluetooth or WiFi connection mode



After the hotspot "SmartLife" is connected, return to the app interface to

start connecting to the device. Please ensure that thegreen light button

flashes and that the Wi-Fi must be 2.4 Ghz(Notice: this device cannot be connected to 5G network). After the device is bound successfully,the following control interface pops up.





Click on "Robot vacuum" to entry the interface as shown below;

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Remove the device: long press the device ID and click on "Remove Device" to remove the device (repeat the procedures above to reconnect the device if necessary);



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-		Selected		Done
•	Robot vac	Jum		0
		E Remove Device		

Ð Set up Scheduled clean: open the main interface of the app -Settings - Timer - Add to - Set a time - Save.

## 12 Auto clean

Click this button to automatically create a new cleaning mission, and the robot will efficiently sweep the area. After the sweeping is finished, the robot will automatically return to the charging dock for charging.







Choosing this button to start a select area clean.

Touch the map to select area will highlight, can setup one or more areas to clean as designated.

## 14 configured zone cleaning

Click on "Zone clean" on the app.

Clickon "configured zone cleaning"on the app.Click "Add Zone", a virtual box is seenon the map.Move the box to the aretfor sweeping. click ordesignated-Start" and the robot will move to thearea designated to sweep the area



## 15 Prohibition/Virtual wall

You can use the APP to set the no-go zone, and you can set one or many no-go zones. The robot vacuum cleaner will not clean the set no-go area and only clean other areas.

## 16 Y-MOPPING

Install the water tank and mopping pad click the "Auto clean" after the robot starting moping then click "setup".





Turn on the "Y-MOPPING" button on the setting page of the APP, the robot will start mopping the floor in "Y" shape pattern.



## **RV4500 Rooms Edit Steps**

When the robot finish mapping, it will automatically separate the rooms and do cleaning room by room. But if you want to edit the rooms by manual, please follow the below steps.

## 1. Separate Rooms

Open the map on App, click on "Map Edit", then click on "Map Custom Editing", then you can select a tool type such as "Split", then choose a room on map and draw the line by hand, so one room will be separated in two rooms.



## 2. Edit Rooms Cleaning

Open the map on App, click on "Map Edit", then click on "Map Custom Editing", then you can select tool type "Order", then click the rooms one by one on map in sequence and save your order, so the robot will do cleaning room by room based on your custom room order.



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