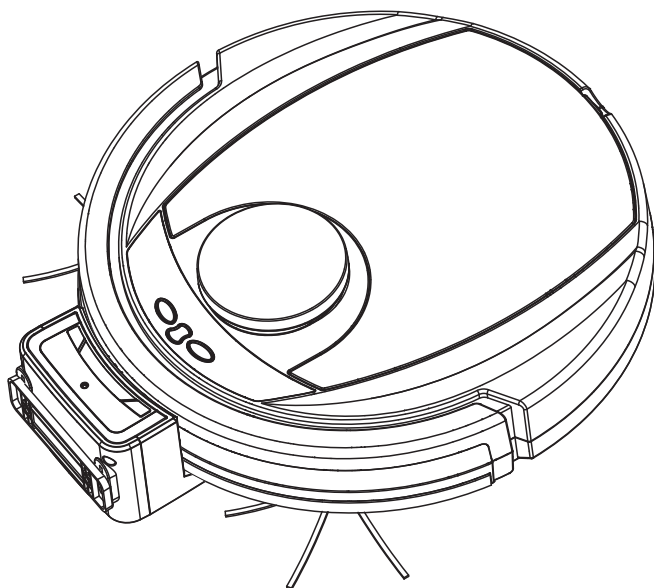


# ***LDS Robotic Vacuum Cleaner with Docking Station***

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## *Operation Manual*



# **M790**

20200408



# TABLE OF CONTENTS

<b>SAFETY INSTRUCTIONS</b>	<b>2</b>
* SAFETY INSTRUCTIONS	
* WARNING	
* BATTERY AND RECHARGING INSTRUCTIONS	
<b>SPECIAL FEATURES</b>	<b>8</b>
<b>MAJOR COMPONENTS AND ATTACHMENTS</b>	<b>8</b>
<b>M790 OVERVIEW</b>	<b>9</b>
<b>INSTALLATION GUIDE</b>	<b>10</b>
* Installing and Removing Side Brush	
* Recharging Battery	
<b>GENERAL OPERATION</b>	<b>12</b>
* Preparation for Operation	
* Control Panel	
* Start	
* APP download and install	
<b>CLEANING AND MAINTENANCE</b>	<b>16</b>
* Maintenance Method	
* Cleaning Dust Bin	
* Cleaning Side Brushes	
* Cleaning Intake	
* Cleaning Brush Roll & Inlet	
* Battery Installation and Removal	
<b>TROUBLE SHOOTING</b>	<b>22</b>
<b>SPECIFICATIONS</b>	<b>23</b>

## SAFETY INSTRUCTIONS

Please read the safety instructions in the Operation Manual before operating M790 and keep this manual handy for your future reference. Observe the basic safety rules to prevent any occurrence of fire, electric shock and personal injury.

### SAFETY INSTRUCTIONS:

1. Please read the Operation Manual before operating M790.
2. Do not operate M790 outdoors.
3. Before starting M790, be sure to install M790 dust bin filter properly in case of any damage of M790.
4. Do not operate on wet floor or moist conditions, e.g. bathroom. Water and moisture could damage the circuit board in M790.
5. Prior to operate M790, remove any loose items on the floor such as clothing, paper, cables, and extension cords.  
Make sure to lift curtains and drapes off the floor to avoid any possible accidents. In case of a cable is tangled with M790 the cable might move around with M790 as it works and topple down the table, chairs, or cabinet and cause property damage.
6. Never sit or stand on M790. Watch out for children or pets while M790 is in operation.
7. Never use M790 to clean up sparking cigarette butts or burning ashes from fireplace.
8. While M790 is in operation, make sure all doors leading outside are closed.
9. During operation, ensure that heat vent is not clogged. If heat vent clogs, M790 could be

## SAFETY INSTRUCTIONS

damaged.

10. If M790 malfunctions or is damaged by force, do not operate unit, regardless of the cause. Please call your local dealer for service information.
11. Turn off the power and remove the battery from M790 if the unit will not in use for a long period of time.
12. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.  
---Children should be supervised to ensure that they do not play with the appliance.
13. **WARNING:** The plug must be removed from the socket or outlet before cleaning or performing maintenance on the unit at all times.
14. Make sure that the appliance can be worked freely in the room (shall not be blocked or overturned etc...) and make sure that there is nothing that the appliance can overturn and create a hazard (clear all Candle, Vase with or without water and fragile objects etc...that placed on the floor or furniture).

## SAFETY INSTRUCTIONS

### **WARNING:**

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 instruction, 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.

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## SAFETY INSTRUCTIONS

### **RF Exposure Warning:**

This Wireless LAN ( local area network)device has been evaluated under FCC Bulletin OET 65 and found compliant to the requirements as set forth in CFR 47 Sections 2.1091, 2.1093, and 15.247 (b) (4) addressing RF exposure from radio frequency devices. The radiated output power of this Wireless LAN device is far below the FCC radio frequency exposure limits. Nevertheless, this device should be used in such a manner that the potential for human contact ( closer than 8”) during normal operation is minimized. When nearby persons have to be kept to ensure RF exposure compliance, in order to comply with RF exposure limits established in the ANSI C95.1 standards, the distance between the antennas and the user should be greater than 20 cm ( approx. 8”). This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna(s) must not be co-located or used in conjunction with any other antenna or transmitter.

## SAFETY INSTRUCTIONS

### BATTERY AND RECHARGING INSTRUCTIONS:

1. Please apply the same model's battery (INR18650 3S2P 10.95V 5200mAh) and adaptor (PA-1240-18XX 20V 1200mA) as equipped with the packing.
2. The external flexible cable or cord of this adaptor cannot be replaced; if the cord is damaged, the adaptor shall be scrapped.
3. When placing the batteries into the reservoir, please be sure that the polarity of the batteries matches with the indication marked inside the battery reservoir. Otherwise, the power cannot be switched on.
4. Forbid any un-rechargeable or different type/model battery.  
Applying un-rechargeable battery will cause the machine malfunctions.
5. The battery is rechargeable. Please use the voltage and current specified on the packing. If you are not sure of the voltage and current of your house, please contact your local power company or a licensed electrician.
6. Use only the battery supplied with your M790.
7. Charging adaptor is for indoors only.
8. The appliance is only to be used with the power supply unit provided with the appliance.
9. Do not recharge the battery if the cable or plug of the battery is damaged.
10. Never touch the charger, plug or cable with damp hands.



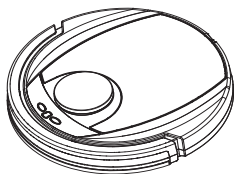
## SAFETY INSTRUCTIONS

11. If M790 requires cleaning, unplug the adaptor, switch off the unit and take out the battery.
12. The battery must be removed from the appliance before it is scrapped.
13. The appliance must be disconnected from the supply mains when removing the battery.
14. To extend the battery life, we suggest to keep the product being always charged when not in use. Recharge M790 as soon as possible following use; waiting several days can damage the battery
15. If you plan not to use M790 over 6 months, please fully charge the battery, then turn off the power and remove the battery from the vacuum cleaner and store it separately. And to recharge the battery (in the vacuum cleaner) till Green light on every 3 months to activate the battery capacity.
16. The battery is to be disposed of safely. Attention should be drawn to the environmental aspects of battery disposal. Don't throw used batteries in dustbin. Please contact your retailer in order to protect the environment.
17. Leakage from battery pack can occur under extreme usage or temperature conditions. If the liquid gets on skin, wash quickly with water. If the liquid gets into the eyes, flush them immediately with clean water for a minimum of 10 minutes. Seek medical attention. Contact a specialist dealer or Customer Services to replace the battery pack. Never replace the battery pack yourself.

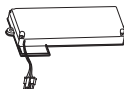
## SPECIAL FEATURES

Congratulations on purchasing M790, the best LDS Robotic Vacuum Cleaner. M790 is a revolutionary LDS Robotic Vacuum Cleaner With Docking Station is equipped with an intelligent mapping system and powerful suction system for effectively cleaning your assigned cleaning tasks. M790 also supports APP control which can create the normal zones, prohibited zones, double clean zones, schedule, etc. It helps you customize your preferred cleaning task. M790 is definitely a household helper.

## MAJOR COMPONENTS AND ATTACHMENTS



M790 Cleaner x1



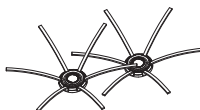
Rechargeable Battery x1  
(1 pc Installed in the cleaner)



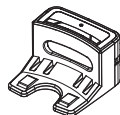
Adaptor x1



Dust Bin Filter x1  
(1 pc Installed in the dustbin)



Side Brush x 2

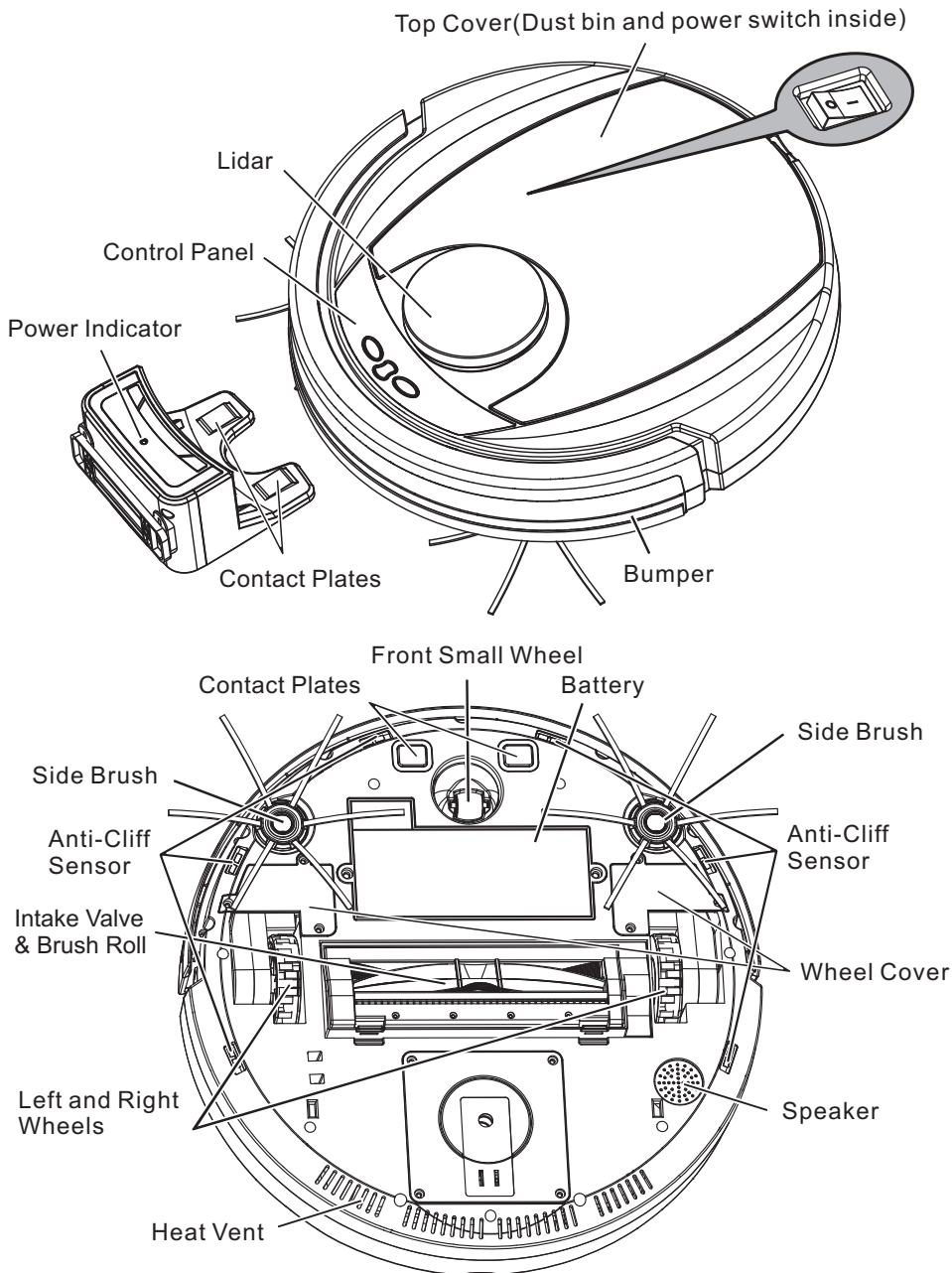


Docking Station x1



Operation Manual x1

# M790 OVERVIEW



# INSTALLATION GUIDE

## Installing and Removing Side Brush:

**To install:** Push the brush directly onto the holder.(Fig. 1)

**To remove:** Hold two opposite sides of the brush as shown in Fig. 2, and evenly pull upward to remove the brush.

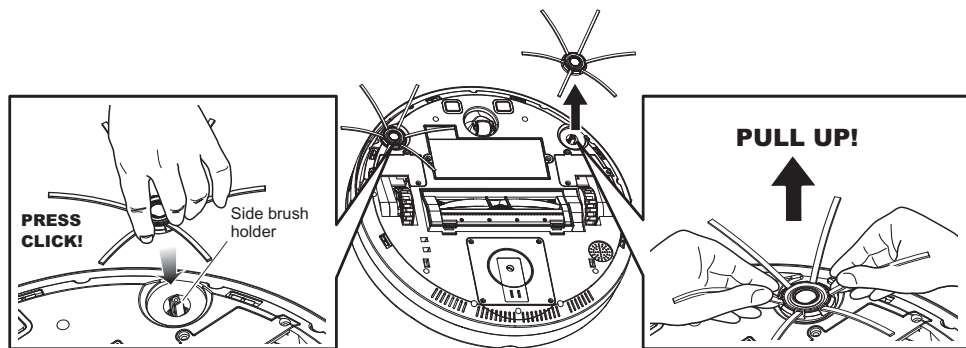


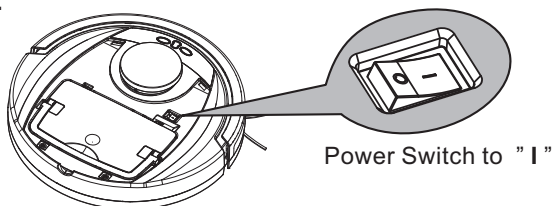
Fig. 1

Fig. 2

# INSTALLATION GUIDE


## Recharging Battery:

1. Before charging, please check if the battery is properly mounted **and turn on the power switch.**




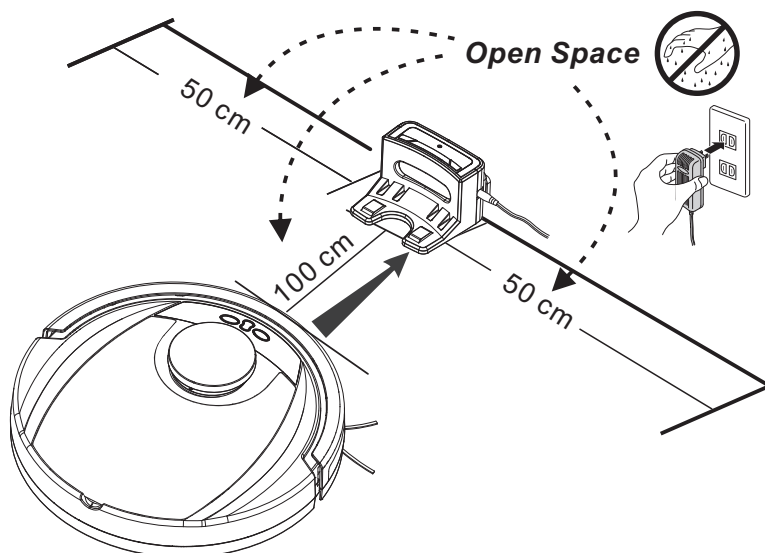
2. Two ways to charge the battery:

### A. Manual charge:

Push the M790 onto the docking station and make sure the contact points at the bottom of the unit are contacted with the contact plate at the docking station. When charging, the LED indicator below the "  " (Power) on M790 (as above diagram) will flash blue, and it will stay blue when the cleaner has been uninterruptedly charged for 4~6 hours.

### B. Auto charge:

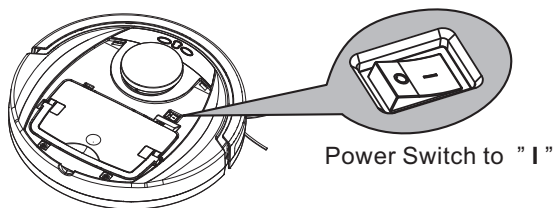
Put M790 in front of the docking station and be sure there is one-meter range free space, then press the docking button "  " on the panel. M790 will automatically seek the docking station to charge.



## GENERAL OPERATION

### Preparation for Operation :

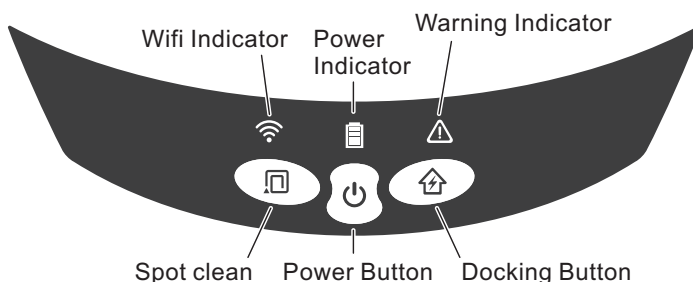
1. Install the side brushes and install the battery according to the manual.
2. Turn on the power switch under the top cover of unit and charge the battery for 4~6 hours prior to the first operation.






3. To ensure the best efficiency of the unit, first is to remove clothes, paper, cable, extension cable scattered on the floor, roll up the curtains and drapes if any to avert the possible accident. In case of the cable entangled with the cleaner, the cable could move around as the cleaner is working and might topple down the table, chairs, even cabinet or cupboard.

# GENERAL OPERATION




## Control Panel:




## Control Panel:


Button	Description
 Power Button	Turn on/Off, Start / Pause / Stop Cleaning
 Docking Button	Start / Pause Docking
 Spot Clean	Start cleaning in a 1.8M*1.8M area

## Indicator Description:


Indicator	Description
 Warning Indicator	The indicator will light on with the following conditions: 1. Bumper/Wheels/Side brushes/ Fan get stuck or Battery's temperature too high. 2. Dust Bin isn't placed well. 3. Robot is lifted up for over 1 second. 4. Anti-Cliff sensor is activated for 3 seconds. 5. No battery installed.
 Power Indicator	1. Constant Blue: Working / Stand-by. 2. Breathing Blue: Initiation / Charging. 3. Constant Red: Low battery. 4. Flashing Blue: Searching the docking station. 5. Off: All off.
 Wifi Indicator	1. Flashing: Connecting / Pairing. 2. Constant Blue: Connected. 3. Fast flashing: Non-setting / Setting failed. 4. Off: Wifi off (Wifi will turn off if not pairing in 10 minutes).


## GENERAL OPERATION


**Start:** Make sure the M790 is already charged onto the docking station with the adaptor plug-in then press the power button “” on the panel for 3 seconds to power on M790 and waiting for 20 seconds to complete the initiation process.

1. **Clean:** In standby mode, press the power button “”, the cleaner will start a total cleaning until it finished or press the button again. The cleaner will enter the sleeping mode (all indicators light-off) if no operation in 10 minutes.

Press any button on control panel to wake up the unit.

2. **Dock:** In standby mode, press the docking button “”, the cleaner will start docking process.

3. **Power Off:** In standby mode, press power button “” for over 3 seconds and also turn off the power switch (Fig. 3) inside the top cover to power off the unit completely. If not using the cleaner for a period, please turn off the power switch (Fig. 3) inside the top cover completely.

4. **Power On:** Turn on the power switch, and press the power button “” for 1 second to power on the unit (comes with a rhythm).

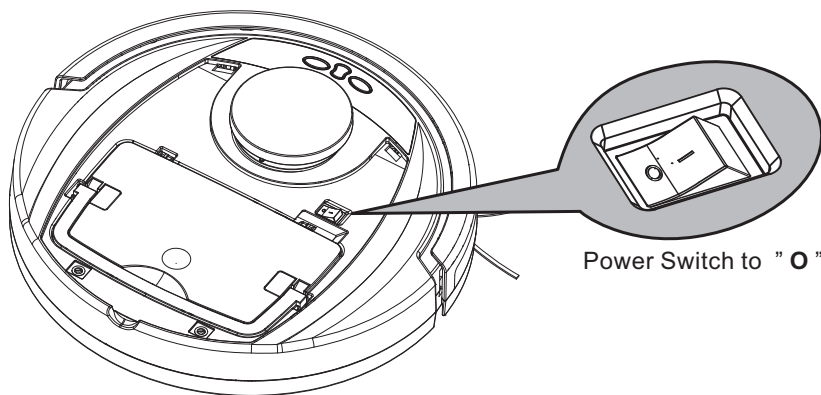


Fig. 3



## GENERAL OPERATION

For more intelligent cleaning functions, please download our APP and check our Quick Start Guide to experience more immersive settings.

**APP download and install (Please refer to our Quick Start Guide) :**

**Support Android 7.0 and new, iOS 11 and newer**

Please find VbotSmart APP in Google Play and APP store and install accordingly:



Or scan the QR code below:



Android



iOS

To disable the Wifi function, please put the M790 unit onto the docking station, and press and hold both Power button “” and Docking button “” on the panel at the same time for 10 seconds until the unit speaks “Charging, Charging, Charging!” and Wifi indicator on the panel lights off.

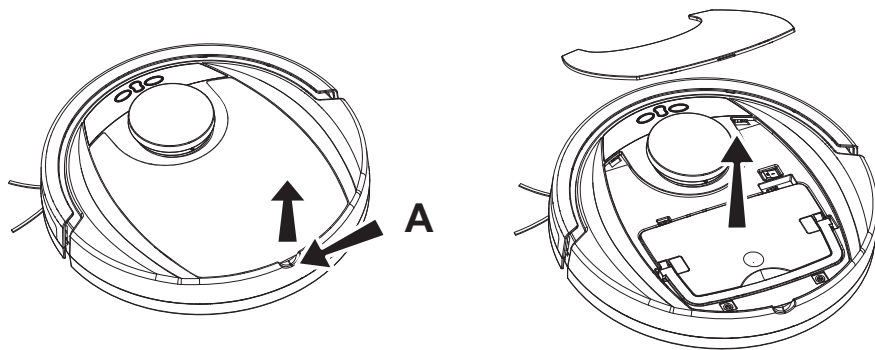
# CLEANING AND MAINTENANCE

## Maintenance Method:

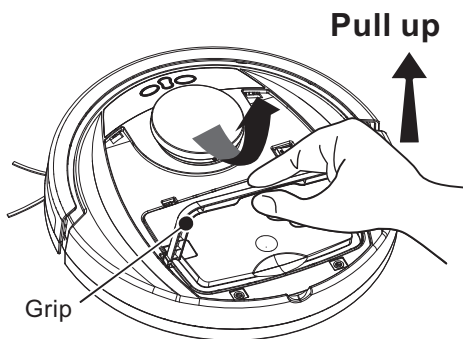
The operation and maintenance of the M790 is very simple. After each use, clean any dirt left behind on the dust bin and filter. It is not necessary to clean the intake after every use.

## Cleaning Dust Bin:

1. Lift the cover from "A" position to open the top cover of the cleaner.

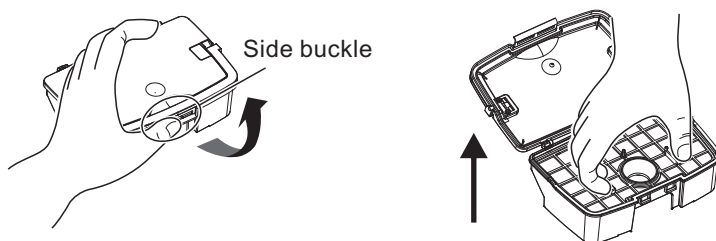


2. Pull up the grip and take out the dust bin from the cleaner.

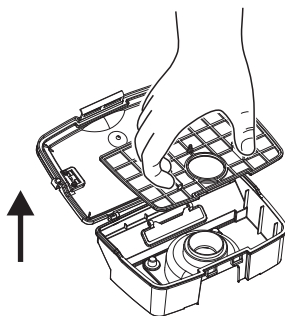


## CLEANING AND MAINTENANCE

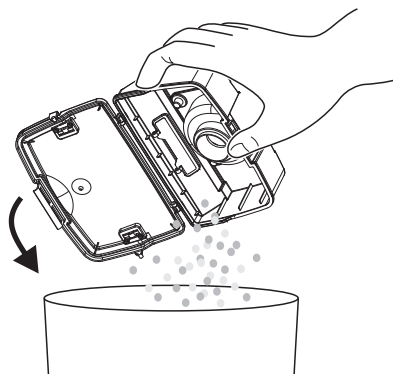
3. Open the upper cover of the dust bin.



4. Lift up and take out the filter.

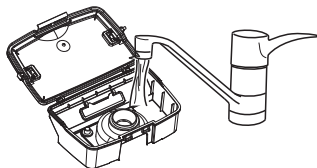


5. Throw away the dust and dirt from the dust bin.

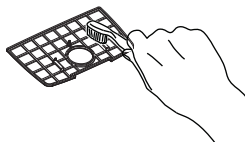


## CLEANING AND MAINTENANCE

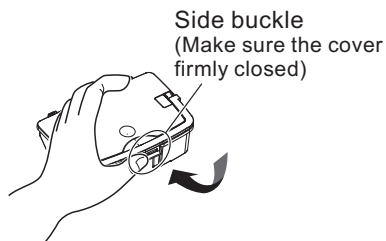
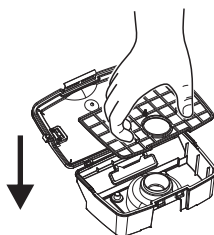
6. Rinse the dust bin with tap water and drain completely. It is not necessary to wash every time. Please do not put it into the washing machine to do the cleaning.



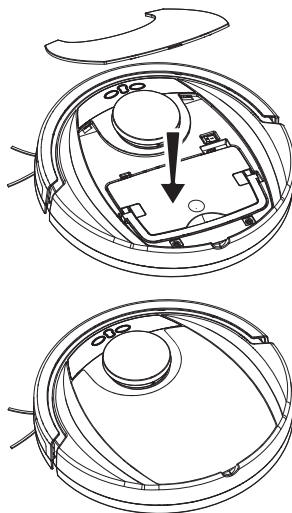
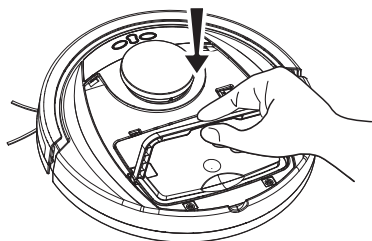
7. Periodically clean the filter with a soft bristle brush.



8. Once dry, reinstall the filter and close the dust bin lid.



9. Place dust bin and top cover back in unit.

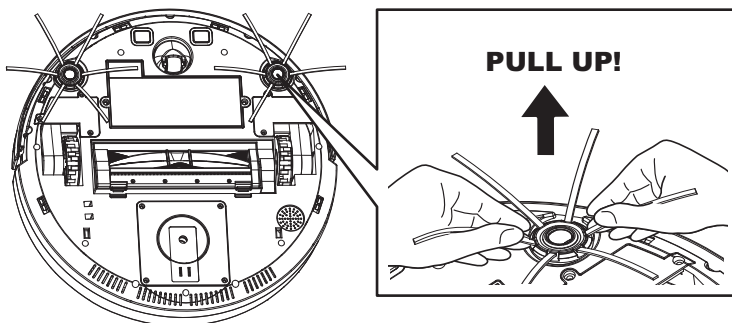


**ATTENTION!!** Before starting the unit, please be sure the dust bin filter has been properly installed to avoid damage.

# CLEANING AND MAINTENANCE

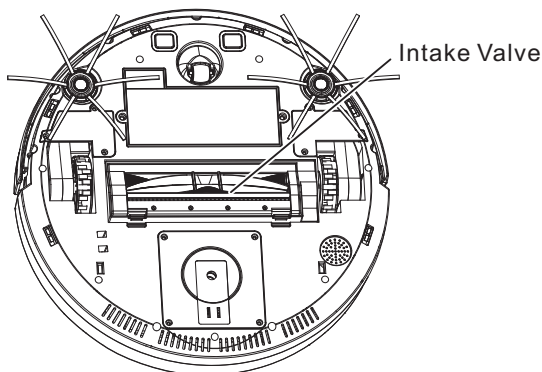
## Cleaning Side Brushes:

1. After being used for a period of time, the brushes need to be replaced for working more effectively.
2. Turn off the power, place bottom of the cleaner upward on a flat surface. Hold two opposite sides of the brush (see diagram below), and evenly pull upward to remove the brush.
3. The side brushes can be rinsed and if they become crooked, you can soak them in hot water to make them recover to the original shape. Install the brushes back after cleaning.



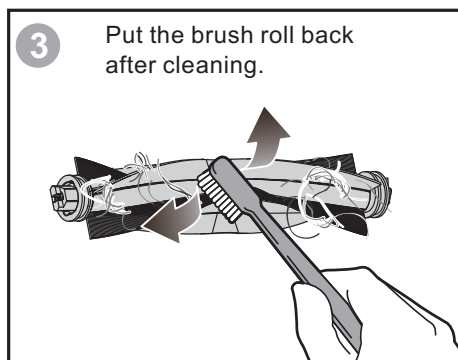
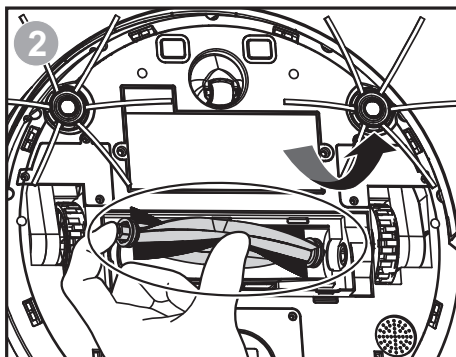
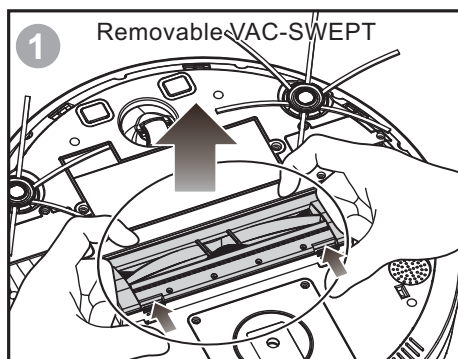
## Cleaning Intake:

After repeated use, dirt and dust can accumulate around the intake of the M790 and the working efficiency can be reduced. To ensure the best efficiency and constant airflow, the intake should be cleaned periodically.



# CLEANING AND MAINTENANCE

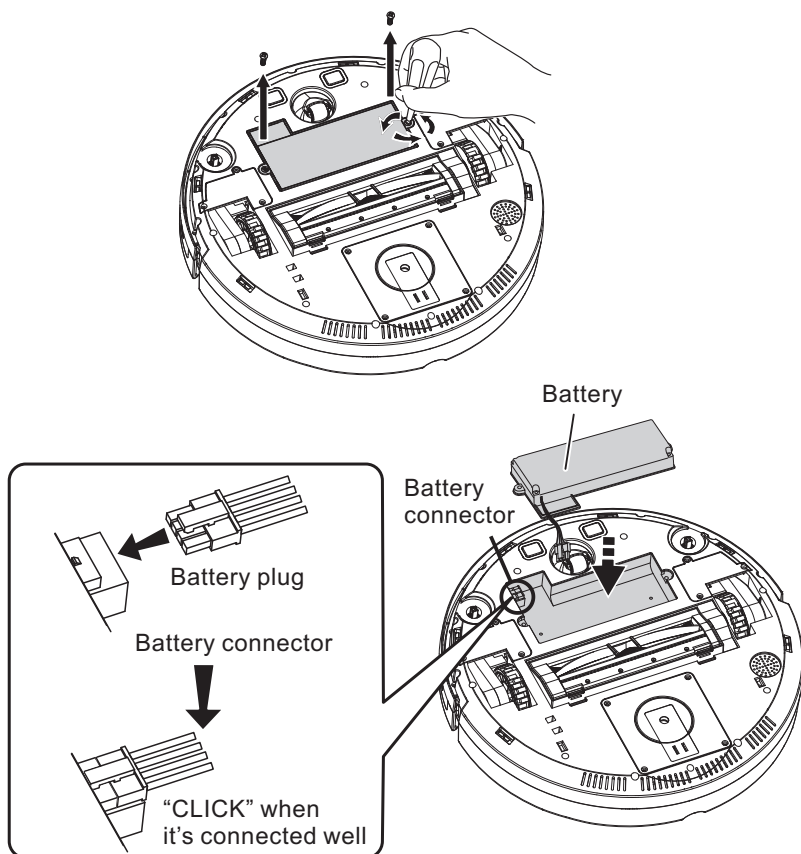
## Cleaning Brush Roll & Inlet:



## CLEANING AND MAINTENANCE

### Battery Installation and Removal:

1. Turn off the power switch before installing the battery.
2. **The method of replacing battery:** Loosing screws from the bottom case and disconnect the battery and install the new battery in the battery compartment with correct connection and screw it back to the bottom housing. Be sure to orient the battery contacts with those of the unit.



## TROUBLE SHOOTING

	Problem	Possible Cause	Solution
1	⏻ Power switch on. Press power key but no LED display shown.	1. Battery is not installed correctly. 2. Very low battery.	1. Install the battery according to the manual. 2. Charge the battery according to the manual.
2	Vacuum on but can not collect dirt or hair.	1. The dustbin is full. 2. The filter is not installed correctly.	1. Clean the dustbin. 2. Re-install the filter correctly.
3	Side brush becomes crooked. Doesn't sweep well.	In use for a long time.	Soak in hot water to have brush recover its original shape.
4	Unit circles around.	Some wires of the wheels is loosened.	Open the wheel cover and connect the loosened wire of the wheel set properly or contact your local dealer for service.
5	Cannot start the unit.	1. The battery is not installed properly. 2. Battery power is low. 3. The dust bin is not installed properly.	1. To install the battery properly, please refer to page 21 for battery installation. 2. Have the battery fully charged. 3. Place back the dust bin and turn it on again.
6	Unit did not vacuum effectively when turned on.	The dust bin filter is not properly installed.	Install the dust bin filter properly.
7	The LED display shows error.	Something wrong with the unit.	Please check the message at a bell on the APP.
8	Wifi pairing not successful.	1. Poor wifi quality. 2. APP not up-to-date. 3. iOS upgrade issue: When pairing, your home wifi name does not appear automatically on the App.	1. Put the unit in a good wifi connection area. 2. Update the App to the latest version from the App market. 3. Re-power on your mobile phone.

**\*\*\* If the solution cannot solve the problem, please contact your local dealer for further support.\*\*\***



# SPECIFICATIONS

M790	
Rating Voltage	10.95V
Power	29Watt
Battery Type	Li-ion rechargeable battery
Battery Capacity	5200mAh
Charging time	4~6 hours
Working time	120 +/-10min
Operating temp	5℃~45℃
Operating humidity	≤80%RH
Noise	≤65dB
Weight Dimension	3.5kg Ø: 360*93mm

Accessory	
Adaptor	20V/1.2A
Docking Station	20V/1.2A





This device can be used in all EU Member States. The frequency bands and the maximum radio frequency emission power in which this device operates are as follows:

Model	WiFi Frequency Range	Antenna Gain	Antenn Configuration	Transmitted power
M790	2.412-2.472GHz	4.6 dBi	Single Transmitting	≤20dBm

Hereby, Matsutek, declares that this Robotic Vacuum Cleaner is in compliance with the essential requirements and other relevant provisions of RE Directive 2014/53/EU. The declaration of conformity may be consulted at the following internet address:

***[https://www.matsutek.com/shop/declaration\\_of\\_conformity](https://www.matsutek.com/shop/declaration_of_conformity)***

## 9.5 Disposing of appliance and battery pack



Do not dispose of the appliance or its battery pack via household trash!

Take the appliance and the removed battery pack to the appropriate recycling points for separate disposal.



: Only for household use



: Satisfies the applicable European directives



: Protection class I  
(Protective insulation)I



: Do not dispose of in household waste



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