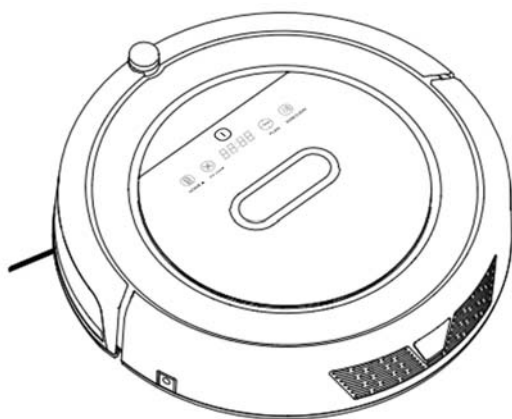# Robotic Vacuum Cleaner

Model: BL809

User Manual

Please keep this user manual in your sight, read it thoroughly and carefully before using this product.

Contents

Safety Instructions

Before using this product, please read the safety instructions and follow all regular safety precautions.

1. Only authorized technicians can disassemble the product. Users are not allowed to disassemble or repair the product.
2. Only use the original battery and power adapter (Model: GQ15-240060-AG) of the product for charging. Using an unmatched adapter may cause electric shock, fire or product damage.
3. Do not touch the power cord, plug or adapter with wet hands.
4. Do not use this product in wet or moist environment (any environment with liquid), e.g. Bathroom or laundry.
5. Do not have curtain, or all kinds of wrapping material or part of user's body wound in the drive wheels.
6. Before use, clear the object on the floor (remove all the fragile objects and cords, clothing, papers, loose cables, as well as make sure to lift curtains and drapes off the floor to avoid any possible accidents.)
7. Make sure this product is not close to cigarette ends, lighters, matches or any flammables.
8. Never use the product to clean combustible or highly volatile liquids, such as gasoline.
9. Only use the product indoors; Do not use it outdoors.
10. If the product needs cleaning, clean it after it is fully charged.
11. Do not over-bend or press the flexible cord with heavy or sharp objects.
12. Do not sit on top of this product or attach an object on the top of it. Beware of children or pets while the product is in operation mode.
13. Do not place this product where it is easy to drop off (tables, chairs, etc).
14. Turn off the power switch during product transportation or when you don't need to use this product for a long time.
15. Before charging, check the adapter and outlet whether these are properly connected.
16. To avoid tripping, all people in the house should be noticed when this product is on.
17. When dust bin is full, empty it before use.
18. Use this product in temperature from 0℃ to 40℃.
19. Do not use this product in high-temperature environment or under baking sunlight for a long time.
20. The battery must be removed from the product before it is scrapped.
21. The battery should be disposed of properly for safety sake.
22. The adapter must be removed from the socket-outlet before cleaning, maintaining the appliance or removing the battery.

Warning:
When the appliance is to be used by a child, the child must be of 8 years old and above. For persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, proper supervision or instruction should be given concerning use of the appliance in a safe way to help them understand the hazards involved. Children should not play with the appliance. Cleaning and user maintenance should not be made by children without supervision.

Product Features

Powerful Suction

Suction power of this product is strong enough to ensure that even tiny dust on the floor will be cleaned thoroughly!

Replaceable Roller Brush kit / Vacuum Suction kit

Main Brush Kit/ Vacuum Suction Kit of this product is replaceable to meet the needs of different users per various cleaning environments.
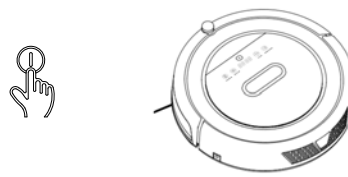
Intelligent Suction Adjustment

This product is able to automatically adjust its suction power when different floor environments are detected. This ability not only makes cleaning more efficient, but also helps to save more power (up to 30%).

User Friendly Design
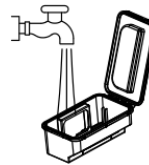
Operation is greatly simplified.

Touch the ⊕ button,and you could start the robot.

Washable Dust bin

Dust bin and filters can be washed by water.
Simply wash dust bin under water after use to
avoid dust blowing in the air to cause a second
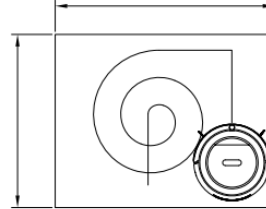Pollution !

Various Cleaning Modes

Four cleaning modes are provided to meet your needs.

1. Auto cleaning mode

The robot will clean your room automatically
and adjust its cleaning behavior based on specific situation.

Product Features

2. Spot cleaning mode

When using suction kit, the robot will clean intensively

in a spiral way while it detects a very dirty area.
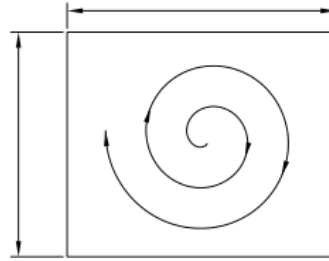
3. Edge cleaning mode

In this mode, the robot will clean along the wall or obstacles.

4. Scheduling mode

After scheduled, the robot will leave charging Station and start working at scheduled time.
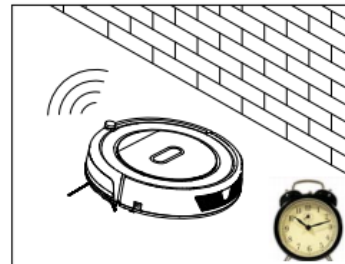
Product Components

Main Body and Accessories

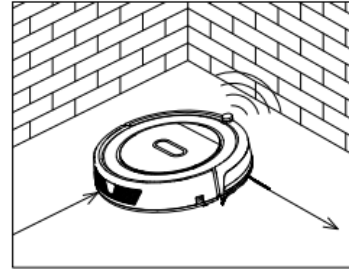| NO.	Description	Quantity
1	Main Body	1
2	Charging Station	1
3	Adapter	1
4	Remote Control (battery not included)	1
5	Water Tank and Mopping Cloth each one piece	1
6	HEPA Filter	1
7	Cleaning Brush	1
8	Side Brushes *2 and Spare Brushes *2	4
9	User Manual	1

Product Components

Main Body Diagram

Bumper
LED display
Touch key
Cover
Bumper strip

Suction component
Roller brush component

Power switch

Left wheel
Left side brush
Bottom cover
Battery cover
Univeral wheel
Right wheel
Charging socket
Auto charging pole
Right side brush

Dust Bin

Dust bin

5
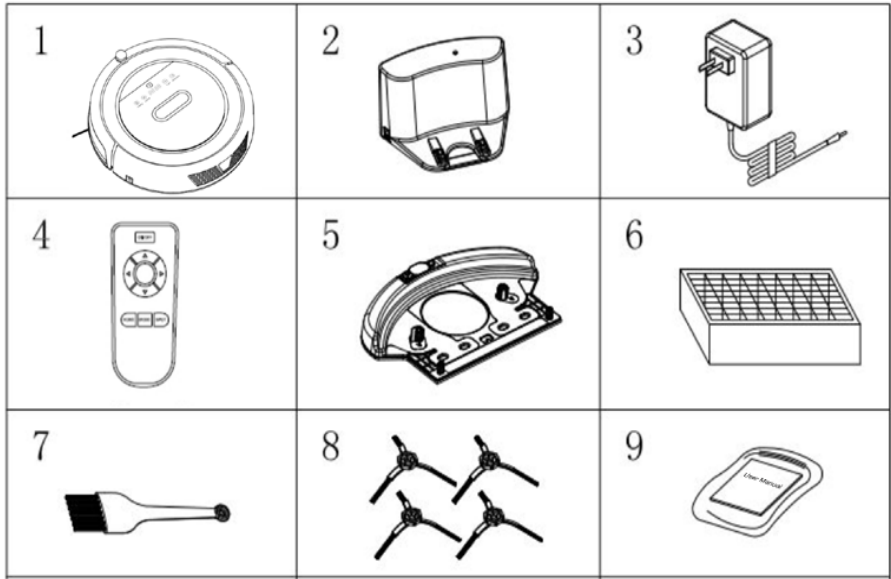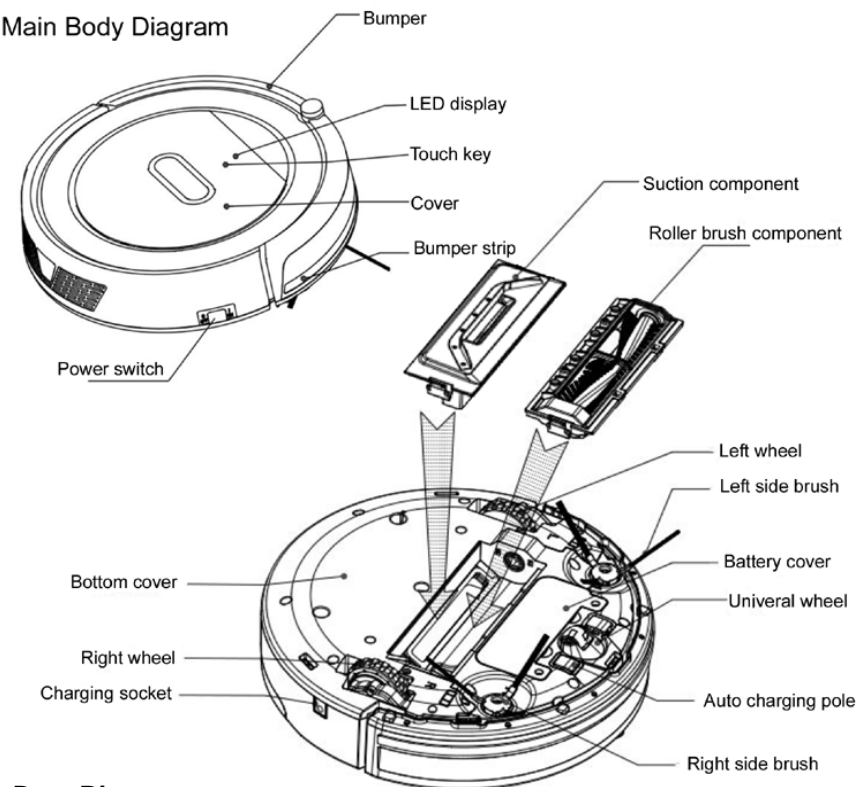
Product Components

Dust Bin Kit

Primary filter
Handle
Dust bin
HEPA filter
HEPA filter shelf

Roller Brush Kit

Roller brush coverplate
Roller brush bushing
Ball bearing
Bearing glusheath
Roller brush
Roller brush holder
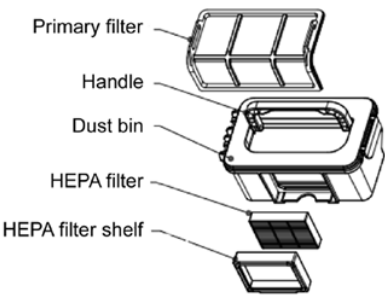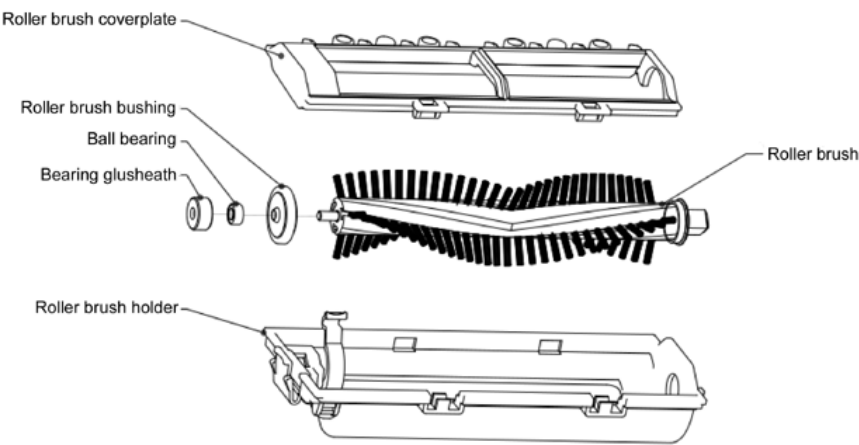
Product Components

Charging Station

power indicator — top cover

charging socket — charging poles
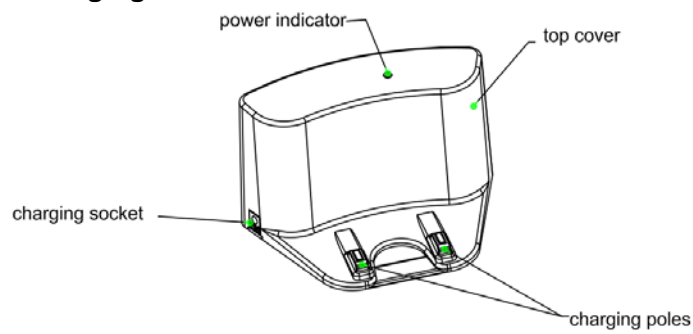
Remote Control

1. ON/OFF
2. Direction button
3. Spot cleaning
4. Auto charging
5. Cleaning mode

ON/OFF — 1

— 2

HOME MODE SPOT

4 — HOME

3 — SPOT

5 — MODE
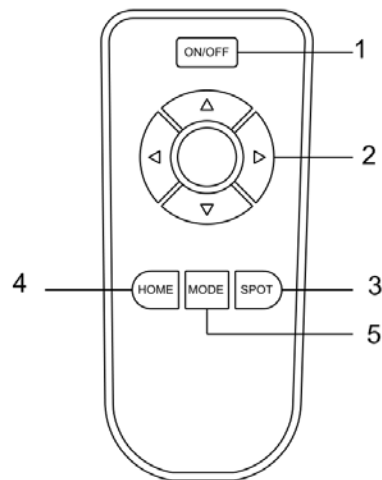
Note:

A. Install two AAA type batteries into the remote control before use,

B. The big round button in the middle of the 4 direction buttons, is a blank button without any function.

C. Remove the batteries if the remote control will be left unused for a long period.

D. If you use the remote control near the charging station, the robot may not recognize the command and may not work.

Product Components

Display Panel

LED Panel

1. $\boxed{88:88}$ LED panel, it shows the time setting, charging status, and error codes by using numbers, letters or graphs. $FULL$: fully charged, $\overline{\mathsf{L}\mathsf{I}\mathsf{J}}$: low power, $11:11$: charging.$RUBF$: suction passage blocked, $RUBN$: no dust bin.

2. $\textcircled{|}$ Clean Button

   A: Press this button to change from sleep mode to standby mode.

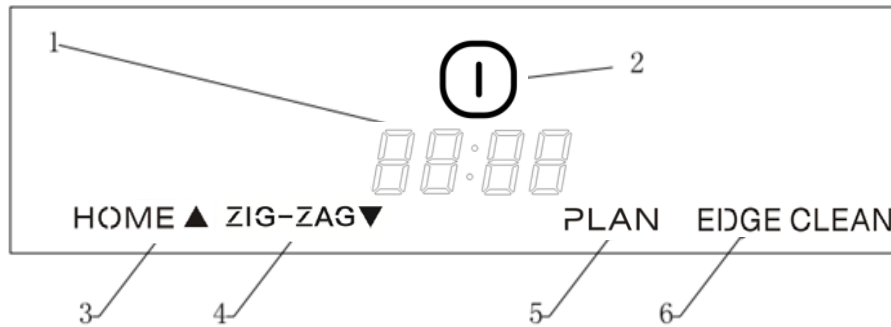   B. In standby mode, press this button and hold it for more than 3 seconds to go into sleep mode.

   C: Confirm schedule setting in scheduling mode.

   D: Start cleaning in standby mode.

3. HOME ▲ Auto homing / number increment button

   A: Press this button to increase number in scheduling mode.

   B: In other mode, press this button to start auto-homing and charging mode.

4. ZIG-ZAG▼ Zig-zag cleaning / number decrement button

   A: Press this button to decrease number in scheduling mode.

   B: In other mode, press this button to start zigzag cleaning.

5. PLAN Schedule button

   Press this button to enter/quit scheduling mode.

6. EDGE CLEAN Edge Cleaning Mode

   Press this button to start edge cleaning in Stand by mode.

7. 🖐 Press button for taking out the dust bin.
   PUSH
   Press this button to open the top cover and take out the dust bin.

Product Operation

1. Battery Charging

A. Charging station placement

Place charging station against the wall and remove obstacles from within 1 meter at two sides and about 2 meters in front of the station, as shown in the right figure.
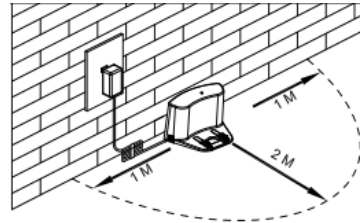
B. If the robot has been shut down, power on the robot by pressing the power switch at the right side of the robot for more than 3 seconds.

C. Charge the robot in either way as shown below:

a. Insert the adapter into the robot and the plug at the other end to the power socket as shown in Fig.a.

b. Press HOME▲ on robot or HOME on remote control to operate the robot to go back to the charging station for recharging as shown in Fig.b.
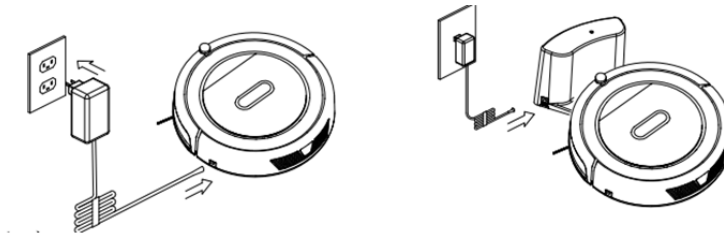
Note:

a. When robot is being charged, LED panel will gradually show 1111 from left to right.

b. Once charging is complete, LED panel will show FULL.

c. In the standby status, the robot will broadcast voice 'Please charge' and LED panel will show when $\lceil$ $\bar{\ }$ $\rceil$ $\rceil$ battery power is low.

d. In the working status, the robot will return to charging station automatically and LED panel will show $\lceil$ $\bar{\ }$ $\rceil$ $\rceil$ when battery power is low .

For extending battery life:

a. Before first use, charge the robot for 12 hours.

b. Charge the robot as soon as battery power is low.

c. The robot will return to charging station automatically when it accomplishes cleaning or battery power is low.

Product Operation

d.　If the robot is not to be used for a long time, fully charge the battery before use, turn the power off, remove and store it in a cool, dry place.

e.　If the robot is not to be used for more than 3 months, charge the robot for 12 hours, turn the power off, remove and store it in a cool, dry place.

2. Starting Up / Standby / Sleeping / Power Off

A.　Starting up

a. Make sure the power switch is on.

b. In standby mode, press (I) on main body or ON/OFF on remote control to start cleaning.

Note: If robot is in sleep mode, press (I) on main body or ON/OFF on remote control to wake up the robot from sleep mode, then press (I) again, the robot will start cleaning automatically.

B.　Standby

Standby means robot has its power switched on, waiting for the user's operation. It can be changed to standby mode by one of the following methods:

a. During robot cleaning, press (I) on main body to enter standby mode.

b. During robot cleaning, press ON/OFF button on remote control to power off the robot.

C.　Sleep

In sleep mode, the robot can only be waken up from (I) button on main body or ON/OFF on remote control. In order to save power, you can turn the robot into sleep mode from standby mode via either of the following methods:

a. Press (I) on main body and hold it for 3 seconds.

b. Robot will automatically enter sleep mode if no command is received for more than 60 seconds.

3.　Scheduling

You can schedule the robot to set it to start cleaning automatically at a certain time every day.

Note: The robot can only be set when it is in standby or charging mode. If the robot is in sleep mode,　press (I) on main body or ON/OFF button on remote control to wake up the robot. If the robot is in cleaning mode, stop it before scheduling.

How to schedule the robot

A.　Setting robot clock

a. In standby or charging status, press PLAN to start clock-setting. the LED panel will show the current system time. Then the left two numbers on LED panel will flash.Press HOME ▲

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Product Operation

to increase hour or ZIG-ZAG▼ to decrease it.

b. Press ⓘ to enter minute-setting mode, the right two numbers on LED panel will flash. Press HOME▲ to increase it or ZIG-ZAG▼ to decrease it.

c. Press ⓘ gain to save the setting, then press PLAN to exit (Before the setting is saved, if press PLAN to exit, the current setting will be invalid).

B. Setting the scheduling time

a. In standby or charging status, press PLAN and hold it for 3 seconds to start scheduling, then the left two numbers on LED panel will flash, press HOME▲ to increase hour or ZIG-ZAG▼ to decrease it.

b. Press ⓘ to enter minute-setting mode, the right two numbers on LED panel will flash, press HOME▲ to increase it or ZIG-ZAG▼ to decrease it.

c. Press ⓘ gain to save the setting, then press PLAN to exit (Before the setting is saved, if press PLAN to exit, the current setting will be invalid).

C. Cancel the scheduling

Set the scheduling time to 00:00.

Note:

a. Before scheduling, please set the robot time to be the same with real time.

b. The robot will start cleaning at the schedule time of Robot Clock every day.

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Product Operation

Cleaning Modes

1. Auto cleaning

In this mode, the robot will clean a room automatically and adjust its cleaning mode according to environment.

Note: Press ⏻ on robot or ON/OFF on remote control to start auto cleaning.
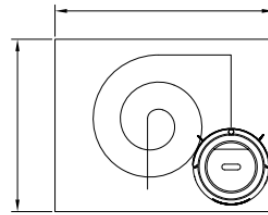
2. Spot cleaning

Under the following situations, the robot will activate spot cleaning:

  1). When it detects a very dirty area.

  2). Press SPOT on remote control.

Note: It's suggested that user select spot cleaning in a very dirty area.
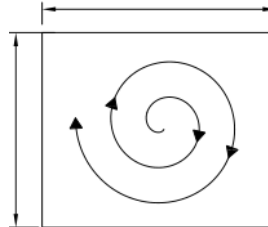
3. Edge cleaning

In cleaning mode, press EDGE CLEAN to enter edge cleaning mode. The robot will clean along the obstacles.
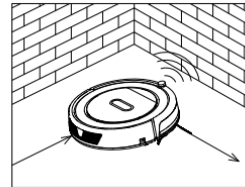
4. Zig-zag cleaning

The robot will automatically goes into zig-zag cleaning when it detected it is in an open area . Or press ZIG-ZAG▼ on the robot.
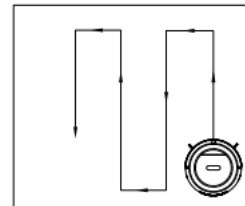
Note:

Press MODE button on remote control to select cleaning mode:

A. Mode No.1111 shows on robot LED display: spiral cleaning mode;

B. Mode No.2222 shows on robot LED display: auto cleaning mode;

C. Mode No.3333 shows on robot LED display: edge cleaning mode;

D. Mode No.4444 shows on robot LED display: zig-zag cleaning mode;

Product Operation

Water Tank and Mopping Cloth Usage

1. Sticking mopping cloth

   To stick mopping cloth on the bottom of water tank as shown in fig 1, make sure the sticking

   side and mopping cloth are facing the appropriate sides, and then to stick the mopping cloth on

   its sticking side.

2. Fill water tank with water

   Take out rubber plug of water tank, fill it with water, and then put back the rubber plug tightly on its

   position in case of water leakage.

3. Fit water tank on the robot

   Turnover the robot, fix the water tank on the robot bottom, make sure its bolts are firmly, pressed

   into the fixing slots.

Fig 1

Fig 2

Fig 3
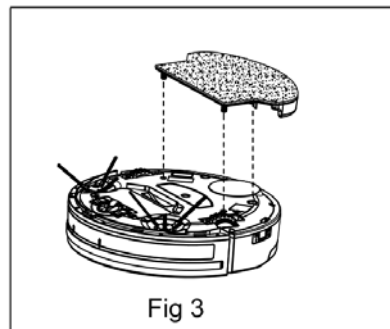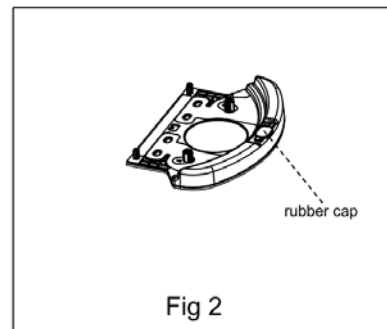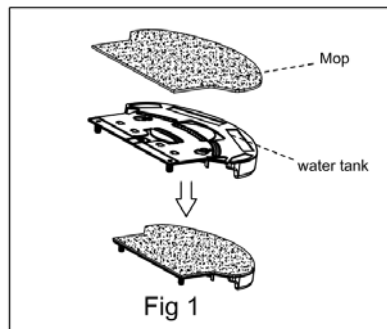
Product Maintenance

1. Cleaning Side Brushes

Clean the side brush when it gets dirty and replace it if it's damaged. Max life span for side brush is 12 months.

Note: before replacing side brushes, check and make L/R mark on side brush match with the L/R mark on the bottom base of the robot.

2. Cleaning Dust Bin and Filters

Empty and clean the dust bin after each use following the steps as shown in the figures below.

A. Press PUSH to open the cover.

B. Take out the dust bin.

C. Take out the HEPA.

D. Open dust bin cover, take out primary filter.

E. Empty the dust bin.

F. Wash dust bin and filter, clean the HEPA with brush.

G. Install the primary filter and HEPA back into the dust bin.
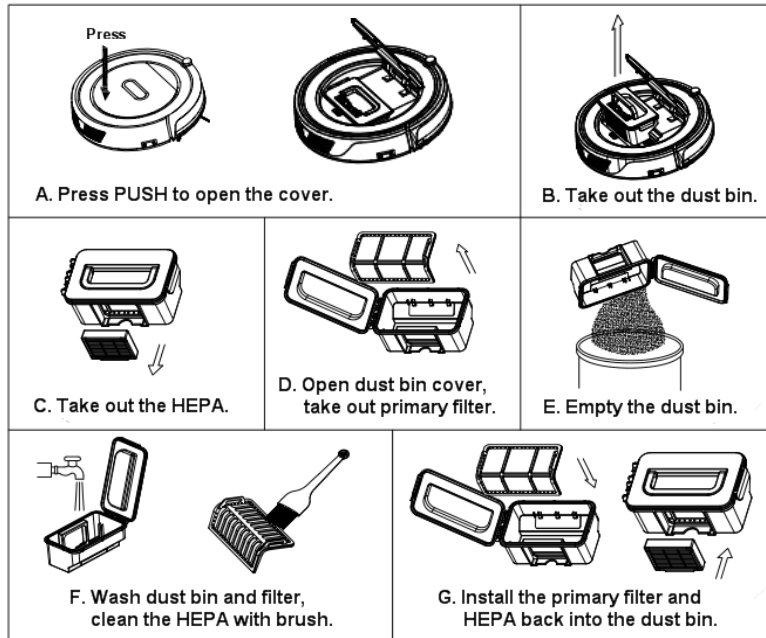
Note:

a. Wash the HEPA and primary filter after used for 15~30 days. Max life span for HEPA and primary filter is 24 months.

b. Reinstall the HEPA and primary filter after they are fully dry.

c. HEPA and primary filter could be replaced if needed.

d. Do not dry the filters under baking sunshine.

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Product Maintenance

3. Cleaning Sensors and Wheels

Slightly wipe all the sensors and wheels, as marked in figure below, with soft cleaning cloth or tool.
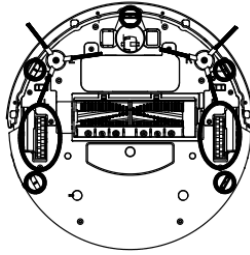
4. Cleaning Charging Poles

Clean the charging poles, as marked in figure below, with soft cleaning cloth or tool.
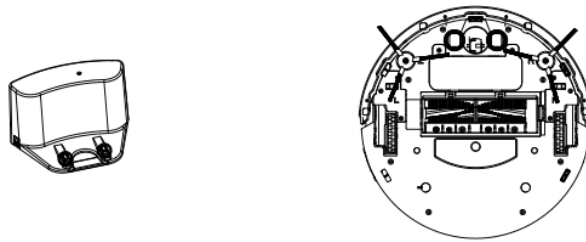
5. Cleaning Suction Passage and Bust Sensor

Clean the suction passage and dust sensor, as marked in figure below, with soft cleaning cloth or tool.
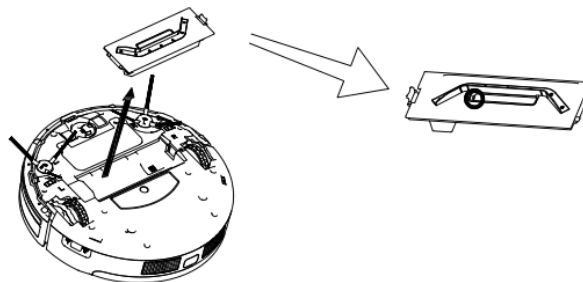
Note: Avoid allowing the sensors to get wet by water, thinner, etc.

Product Maintenance Kit

6. Cleaning Roller Brush

Take out and disassemble the roller brush kit as shown in figure below, and clean it with soft cleaning cloth or tool. (The roller brush axle can be washed by water)

Note: Please re-install the roller brush axle after it is fully dry.

Troubleshooting

Error Code for Sensors

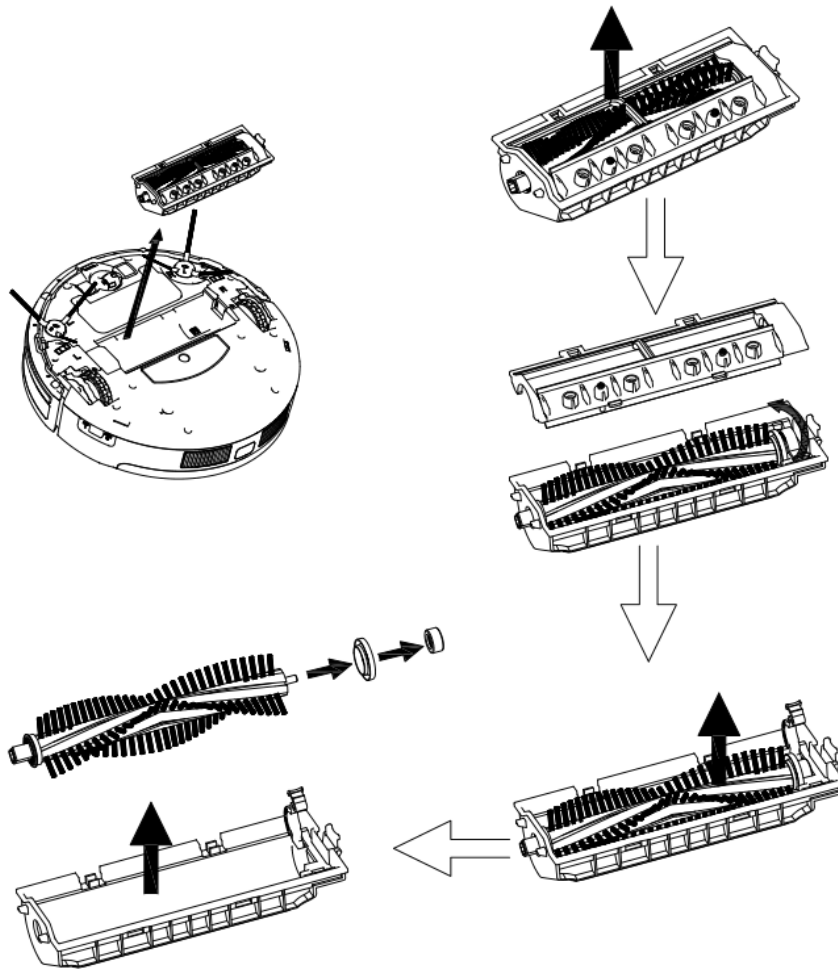| Error code	Cause	Solution
AUBF	Suction passage blocked	Clean suction passage
AUBN	Dust bin not well located or robot without dust bin	Put back dust bin and place it in position
E1xx	Left collision switch fault	Check sensitivity of the front bumper
E2xx	Right collision switch fault	
E3xx	Left and right collision switch fault	
E4xx	Left wheel off the ground	Put robot on solid ground
E5xx	Left wheel off the ground, left collision switch fault	Put robot on solid ground and check front bumper
E6xx	Left wheel off the ground, right collision switch fault	
E7xx	Left wheel off the ground, left and right collision switch fault	
E8xx	Right wheel off the ground	Put robot on solid ground
E9xx	Right wheel off the ground, left collision switch fault	Put robot on solid ground and check sensitivity of the front bumper
Eaxx	Right wheel off the ground, right collision switch fault	
Ebxx	Right wheel off the ground, left and right collision switch fault	
Ecxx	Left and right wheel off the ground	Put robot on solid ground
Edxx	Left and right wheel off the ground, left collision switch fault	Put robot on solid ground and check sensitivity of the front bumper
Eexx	Left and right wheel off the ground, right collision switch fault	
Efxx	Left and right wheel off the ground, left and right collision switch fault	
Exx1	Left anti-drop sensor detect cliff	Clean bottom anti-drop sensor
Exx2	Front anti-drop sensor detect cliff	
Exx3	Left and front anti-drop sensor detect cliff	Clean front sensor lens and bottom anti-drop sensor lens
Exx4	Right anti-drop sensor detect cliff	Clean bottom anti-drop sensor
Exx5	Left and right anti-drop sensor detect cliff	
Exx6	Front and right anti-drop sensor detect cliff	Clean front sensor lens and bottom anti-drop sensor lens
Exx7	Front, left and right anti-drop sensor detect cliff	
Exx8	Front bumper right infrared sensors detect obstacle	Clean front bumper sensor lens

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Troubleshooting

Error Code for Sensors

Error code	Cause	Solution
Exx9	Left anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	**Clean front sensor lens and bottom anti-drop sensor lens**
ExxA	Front anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
ExxB	Left and front anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
ExxC	Right anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
ExxD	Left and right anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
ExxE	Right and front anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
ExxF	Front, left and right anti-drop sensor detect cliff, front bumper right infrared sensors detect obstacle	
Ex1x	Front bumper left infrared sensors detect obstacle	**Clean front bumper sensor lens**
Ex2x	Front bumper middle infrared sensors detect obstacle	
Ex3x	Front bumper left and middle infrared sensors detect obstacle	
Ex4x	Front bumper right infrared sensors detect obstacle	
Ex5x	Front bumper left and right infrared sensors detect obstacle	
Ex6x	Front bumper middle and right infrared sensors detect obstacle	
Ex7x	Front bumper left, middle and right infrared sensors detect obstacle	
Ex8x	Front bumper wall detection infrared sensors detect obstacle	
Ex9x	Front bumper wall detection sensors and left infrared sensors detect obstacle	
ExAx	Front bumper wall detection sensors and middle infrared sensors detect obstacle	
ExBx	Front bumper wall detection sensors, left and middle infrared sensors detect obstacle	
ExCx	Front bumper wall detection sensors, right infrared sensors detect obstacle	
ExDx	Front bumper wall detection sensors, left and right infrared sensors detect obstacle	
ExEx	Front bumper wall detection sensors, right and middle infrared sensors detect obstacle	
ExFx	Front bumper wall detection sensors, left, right and middle infrared sensors detect obstacle	

Troubleshooting

Troubleshooting for Motors

Error code	Cause	Solution
L01x	Fan overloaded	Check if fan is pressed, and clean dust bin
L0x1	Left wheel overloaded	Check if it's stuck or wired by obstacles
L0x2	Right wheel overloaded	
L0x3	Left and right wheel overloaded	
L0x4	Left side brush overloaded	
L0x5	Left wheel and left side brush overloaded	
L0x6	Right wheel and left side brush overloaded	
L0x7	Left and right wheel, left side brush overloaded	
L0x8	Right side brush overloaded	
L0x9	Left wheel and right side brush overloaded	
L0xA	Right wheel and right side brush overloaded	
L0xB	Left and right wheel, right side brush overloaded	
L0xC	Left and right side brush overloaded	
L0xD	Left wheel, left and right side brush overloaded	
L0xE	Right wheel, left and right side brush overloaded	
L0xF	Left and right wheel, left and right side brush overloaded	
L02X	Roller brush overloaded	

Note:

1. There is no problem for the robot when it displays L000.

2. X is the number or letter might appear on display for different fault.

3. If robot displays E001 or E004, please find EXX1 or EXX4 for relative solution referred in trouble -shooting.

4. If robot displays EC07, please find ECXX and EXX7 for relative solution referred in troubleshooting.

5. Like wise, if robot displays EE91, please find EXX1 and EX9X relative solution referred in trouble -shooting.

6. If above solution does not work, please try below:

    a. Reset the robot by switching off the unit and then turn it on, and check again.

    b. If it still does not work after reset, contact after sales.

7. UV light might hurt your eyes, so please do not stare directly at the light when turned on.

Warnings About Battery

WARNING

You must not remove (or attempt to remove) the battery incorporated in this product on your own. To replace the battery, you must contact your service provider or an independent qualified professional. These provider or independent qualified professional.

FOR YOUR OWN SAFETY, DO NOT ATTEMPT TO REMOVE THE BATTERY ON YOUR OWN OR DISPOSE OF IT IN FIRE. DO NOT DISASSEMBLE, CRUSH OR PUNCTURE THE BATTERY.

Battery Removal

1. Remove the screws on battery cover with a screw driver.
2. Remove the battery cover.
3. Grasp the insulating tape at two sides of the battery and lift the battery.
4. Unplug the wire connector that links the battery and robot.

Correct disposal of batteries in this product

(Applicable in countries with separate battery return systems.)

The marking on the battery, manual or packaging indicates that the battery in this product should not be disposed of with other household waste. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

The battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider. Do not attempt to remove the battery or dispose it in a fire. Do not disassemble, crush, or puncture the battery. If you intend to discard the product, the waste collection site will take the appropriate measures for the recycling and treatment of the product, including the battery.

Product specifications

Classification	Item	Detail
Mechanical Specifications	Diameter	340mm
	Height	88mm
	Weight	3.5Kg
Electrical Specifications	Power Rating	14.6V
	Battery specifications	Li - ion battery 2150mAh
Cleaning Specifications	Dust bin Capacity	0.5L
	Charging Type	Auto Charging/ Manual Charging
	Cleaning Mode	Auto, Spot, Edge, zig-zag, Schedule
	Charging Time	240~300 mins
	Cleaning Time	90~100 mins
Main Body Button Type		Touch pad (LED display)

Note: Particular specifications are subjected to change without prior notice.

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FCC Caution.

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.

Any 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.