

Roborock Customer Service Center - Technical Support

# FAQs for Roborock Robotic Vacuum Cleaner S5 MAX Series

Version: V1.0

目录

Appearance-related .....	10
1. Q: What's the difference between S5 MAX0 and S5 MAX5? .....	10
2. Q: Is it normal if the machine is found to be slightly scratched when unpacking? .....	10
3. Q: Is it normal if the machine body and top cover are scratched after use? .....	10
4. Q: What's the height of the machine? .....	10
5. Q: What's the diameter of the machine? .....	11
6. Q: What's the small brush in the right of the machine? .....	11
7. Q: Is it normal that the loose portion in the front of the machine is movable? .....	11
8. Q: Why does a circular orange rotating portion protrude from the top? Is it normal that the top cover can be pushed? Is it normal that the top cover is loose? .....	11
9. Q: What's the hole in the front of the machine? .....	12
10. Q: What are two sides in the rear of the machine? .....	12
11. Q: What are two metal tabs on the bottom of the machine? .....	12
12. Q: What's the black area on the charging dock? .....	12
13. Q: What is the metal strip that can be pressed on the bottom of the charging dock? .....	13
14. Q: What is the capacity of the water tank? What is the difference between the previous bionic water tank? .....	13
15. Q: What's the movable wheel set on the bottom front of the machine body? .....	13
16. Q: What's the purpose of the transparent long adhesive tape on the bottom of the main brush cover? .....	14
17. Q: What's the purpose of the 4 transparent windows on the bottom of the machine? .....	14
18. Q: What's the purpose of a handful of black hair on the side brush and main brush cover? .....	14
19. Q: What's the purpose of the black rubber in two sides on the bottom of the main brush cover? .....	15
20. Q: Is it normal that the main brush structure on the bottom is free to move up and down? .....	15
21. Q: What's the purpose of the transparent film exposed when the main brush is removed? .....	15
22. Q: What's the purpose of the iron wires on the main brush cover? .....	15

## Roborock Customer Service Center - Technical Support

---

23. Q: What's the purpose of the white label on the bottom screw? .....	16
24. Q: What's the purpose of the hole in the right of the machine body?.....	16
25. Q: Why are two wheels of the machine free to move up and down?.....	16
26. Q: Why is the tread pattern of the machine designed to be serrated?.....	16
27. Q: Is it normal that the side brush and bottom cover are scratched?.....	17
28. Q: Is the upper cover of the machine rugged, or is it easily broken? .....	17
29. Q: Is the upper cover wear resisting? .....	17
30. Q: What should I do when the laser head protective cover of the machine is easy to be stained? .....	17
31. Q: What's the black soft rubber ring set on the dust bin and what's the purpose?....	18
32. Q: Why is only one side brush provided rather than two?.....	18
33. Q: Will the machine be affected by some deformation/damage of the packing box? 19	
34. Q: What is the capacity of the water tank? What is the difference between the previous bionic water tank? .....	19
35. Q: After opening the box, I found water stains in the water tank or the body inlet and outlet. Is it normal? .....	20
36. Q: What are the upgrades of S5 MAX over other S series? .....	20
Use-related.....	21
1. Q: What's the best location to set the charging dock? .....	21
2. Q: Is a bumper strip required?.....	21
3. Q: Is it suitable for solid wood/composite/archaised/tile floor?.....	22
4. Q: What should I do when I feel it is too noisy? .....	22
5. Q: Can it clean effectively?.....	22
6. Q: How long will it take to clean my home? .....	22
7. Q: Is it suitable for overseas markets? .....	23
8. Q: Is timer cleaning supported? How to set it? .....	23
9. Q: Is it suitable for a carpet? .....	23
10. Q: What should I do when it frequently gets stuck in a balcony? .....	24
11. Q: What should I do when it frequently gets stuck in the same place and reports an error? .....	24

## Roborock Customer Service Center - Technical Support

---

12. Q: What should I do when it always travels with a waste bin or a slipper? .....	24
13. Q: Can I move the machine when it is working? .....	24
14. Q: Can it work normally in a completely black environment? .....	25
15. Q: Is 5GHz Wi-Fi or 802.1x verification mode supported? .....	25
16. Q: What should I do when the machine draws water? .....	25
17. Q: Can it automatically empty the waste? .....	25
18. Q: Will your private information be public? .....	26
19. Q: Is there a potential risk of electric shock when touching the charging dock? .....	26
20. Q: What's the flashing red light when seeing the laser distance sensor (LDS) with naked eyes, and is it harmful to my eyes? .....	26
21. Q: Why does the robotic vacuum cleaner neglect some locations (for example, the 2 mm balcony with black floor is neglected)? .....	27
22. Q: What is the sound level of the robotic vacuum cleaner? .....	27
23. Q: How long will the robotic vacuum cleaner take to charge? .....	27
24. Q: Will tire's trace be left on the floor behind the robotic vacuum cleaner .....	28
25. Q: What should I do when the machine works noisily? .....	28
26. Q: What should I do when there is no water/too little water/too dried cloth for mopping? .....	29
27. Q: What should I do when there is high water flow/too much water/too wet cloth? .....	30
28. Q: Is it normal that the machine slightly tilts after recharging? .....	30
29. Q: Why does the machine try two or three times to interface with the charging dock for successful recharging? .....	31
Hardware and structure-related .....	31
1. Q: What's the detection range and precision of the laser head? .....	31
2. Q: Is the laser sensor harmful to children or pets? .....	32
3. Q: Is dust detection feature provided? .....	32
4. Q: What kind of fan is used and what is the suction capacity? .....	32
5. Q: Is dust full detection provided? .....	32
6. Q: Will long-term charging consume more power? Will overcharge shorten the service life of the battery? .....	33
7. Q: Why does charging take more time in summer? .....	33

## Roborock Customer Service Center - Technical Support

---

8. Q: Why does power-on fail in winter? .....	33
9. Q: Will the laser head be damaged due to the interference from the full-length mirror? 34	
10. Q: How long can it work in full charge state? .....	34
11. Q: Is electric motor overload protection mechanism available? .....	34
12. Q: What's the RPM of the side brush, main brush and fan?.....	35
13. Q: What kind of lithium battery is used and what's the capacity? .....	35
14. Q: What's the purpose of the floating main brush structure?.....	35
15. Q: Do I have to power the machine off after cleaning? .....	35
16. Q: Can the machine still work after the main brush is removed? .....	36
17. Q: Will the magnetism of the virtual wall be reduced overtime?.....	36
Software & Algorithm-related .....	36
1. Q: Why does the machine turn around rather than going straight ahead in an open field? .....	36
2. Q: Why does the machine decelerate in an open field? .....	37
3. Q: Why is the machine not designed to fully avoid impact on furniture? .....	37
4. Q: Why does the speed of the side brush change frequently?.....	38
5. Q: Why is the brush and fan not turned off to recharge the machine? .....	38
6. Q: Why does the side brush and main brush of the machine reverse?.....	38
7. Q: Why doesn't the machine go for cleaning the middle area? .....	39
8. Q: Why does the machine recharge after working twice in my house? .....	39
9. Q: Why is recharge impossible for the machine after spot cleaning? .....	39
10. Q: Why does path programming failure happen? .....	39
11. Q: Why can't the machine go clean the room with the door being previously closed? 40	
12. Q: Why is the machine automatically powered off? .....	40
13. Q: Can timer cleaning be enabled after the machine is powered off? .....	40
14. Q: Why can't the machine cross a curtain or bed sheet? .....	41
15. Q: Can the machine memorize a map and how to clear the memory? .....	41

16. Q: What should I do when I do not want to continue cleaning or I would like to restart cleaning?.....	41
17. Q: What happen that the machine does not return to the charging dock when I press the Recharge key while the machine is working? .....	42
18. Q: What is the Virtual wall, the No-go Zone and the No-map zone on APP?.....	42
19. Q: How to set up the Virtual wall, No-go Zone and No-map Zone? .....	43
20. Q: How many Virtual walls, No-go zones and No-map zones can we set up?.....	43
21. Q: What should we do if the machine still enters the Virtual wall or the No-go zone for cleaning? .....	43
22. Q: Is it necessary to buy a virtual wall even if the machine could set up Virtual wall and No-go zone function? .....	44
23. Q: After the map is saved, if the furniture environment changes, will the machine clean the new environment area and update the map?.....	44
24. Q: After the map is saved, if the furniture environment changes, will it prompt a message to reset the map on the APP before the next cleaning? .....	45
25. Q: If the saved map is tilted or overlapped, will it prompt a message to reset the map on the APP before the next cleaning?.....	45
26. Q: After the map is saved, if there are some changes with room area, will the map be updated? .....	46
27. Q:After the map is saved, what should we do if the machine still establish cleaning routes in the original map when the machine is moved to a new environment? .....	46
Mobile Phone-related .....	47
1. Q: What should I do when Wi-Fi connection timeout always occurs? .....	47
2. Q: What should I do when the machine frequently gets offline?.....	48
3. Q: What should I do when the machine cannot be found in Roborock app?.....	48
4. Q: What should I do when the machine displays an inaccurate battery capacity? .....	49
5. Q: Why is the direction of the map changed frequently? .....	49
6. Q: What should I do when the map or path is askew? .....	49
7. Q: How many times in a day can timer cleaning be set for the machine? .....	49
8. Q: What's the purpose of the DND (Do Not Disturb) mode?.....	50
9. Q: What's the purpose of the machine positioning feature? .....	50
10. Q: Is it normal when the path seems repetitive?.....	50

## Roborock Customer Service Center - Technical Support

---

11. Q: Are spot cleaning records not shown in cleaning records?.....	51
12. Q: How long can cleaning records be retained? .....	51
13. Q: Can notifications be blocked from the APP?.....	51
14. Q: Why is the button in APP delayed for a long time? .....	51
15. Q: What should I do when firmware update fails/update stops? .....	52
16. Q: Is multi-router roaming supported?.....	52
17. Q: Is Wi-Fi amplifier/relay supported?.....	52
18. Q: What's the 3G/4G traffic consumption for the mobile phone? .....	52
19. Q: Can the machine be connected to several devices at a time? .....	53
20. Q: Is the machine connected to only one mobile phone or tablet PC? How to have it remotely controlled by my family members? .....	53
21. Q: What should I do when the machine cannot automatically start working even if the timer cleaning is enabled?.....	53
22. Q: Why can't the firmware be updated to the latest version at a time?.....	54
23. Q: Why can't the APP map be updated?.....	54
24. Q: Can the machine work normally when moving from Wi-Fi coverage area to Non-Wi-Fi coverage area during cleaning? .....	55
25. Q: What do the green, yellow and red points on the APP map interface indicate respectively?.....	55
26. Q: Why does iOS-based APP always re-load a plug-in every time? .....	56
27. Q: Why I am alerted with "Device Initialization Failed" when clicking the machine on the Device List page for iOS-based version APP? .....	56
28. Q: Is unencrypted Wi-Fi supported? .....	56
29. Q: APP issue summary for different mobile phone models.....	56
30. Q: The robotic vacuum cleaner will be automatically offline in the following day after the Wi-Fi is normally connected.....	57
Troubleshooting-related .....	57
1. Q: What should I do when error 1 occurs? .....	57
2. Q: What should I do when error 2 occurs? .....	58
3. Q: What should I do when error 3 occurs? .....	58
4. Q: What should I do when error 4 occurs? .....	58

## Roborock Customer Service Center - Technical Support

---

5. Q: What should I do when error 5 occurs? .....	58
6. Q: What should I do when error 6 occurs? .....	59
7. Q: What should I do when error 7 occurs? .....	59
8. Q: What should I do when error 8 occurs? .....	59
9. Q: What should I do when error 9 occurs? .....	60
10. Q: What should I do when error 10 occurs? .....	60
11. Q: What should I do when error 11 occurs? .....	60
12. Q: What should I do when error 12 occurs? .....	61
13. Q: What should I do when error 13 occurs? .....	61
14. Q: What should I do when error 14 occurs? .....	61
15. Q: What should I do when error 15 occurs? .....	62
16. Q: What should I do when error 16 occurs? .....	62
17. Q: What should I do when error 17 occurs? .....	62
18. Q: What should I do when error 18 occurs? .....	62
19. Q: What should I do when error 19 occurs? .....	62
20. Q: What should I do when error 21 occurs? .....	63
21. Q: What should I do when error 22 occurs? .....	63
22. Q: What should I do when I get a message from the machine that it fails to return to the starting point? .....	63
23. Q: What should I do when I get a message from the machine that the filter is blocked when I remove the dust bin? .....	64
24. Q: What should I do when I get a message from the machine that recharge fails and please move the charging dock to an open field?.....	64
25. Q: What should I do when I get a message from the machine that the charging dock cannot be found and please move the machine to be close to the charging dock?.....	64
26. Q: What should I do when the machine works abnormally and always knock into a wall or furniture?.....	65
27. Q: What should I do when failing to power the machine on? .....	65
28. Q: What should I do when the boot sound is unavailable and the ring light is white breathing after power on? .....	65
29. Q: What should I do when the machine travels along an exceptional path (circular motion)? .....	66

30. Q: What should we do if the machine voice prompt an internal error? .....	66
31. Q: What should I do if the water tank cannot add water? .....	67
<b>Routine Maintenance-related .....</b>	<b>67</b>
1. Q: What would be better with regard to the maintenance schedule for the machine? 67	
2. Q: Do I have to replace consumables when I get a message regarding part replacement from Roborock app? .....	68
3. Q: Can the side brush, main brush and dust bin be flushed with water?.....	68
4. Q: Can the filter be flushed with water? Why?.....	68
5. Q: What should I do when the side brush is deformed? .....	69
6. Q: What should I do when the main brush is entangled by hair?.....	69
7. Q: What should I do when the left/right wheel is entangled by harness? .....	69
8. Q: What should I do when the machine works with sudden high noise?.....	69
9. Q: Can I use wet cloth to wipe off the machine body/charging dock? .....	70
10. Q: What's the frequency of replacement for the side brush and main brush?.....	70
11. Q: How to remove the filter for cleaning? .....	70
12. Q: How to clean the omni-directional wheel? .....	71
13. Q: What should I do when the main brush is deformed due to entangled harness?..	71

## Appearance-related

1. Q: What's the difference between S5 MAX0 and S5 MAX5?

A: S5 MAX0 is white while S5 MAX5 is black, with no difference in other features and accessories.

2. Q: Is it normal if the machine is found to be slightly scratched when unpacking?

A: The product may be slightly scratched due to in-transit bumps. It is guaranteed that, however, each set of machine delivered to our dear end user is new and unused.

3. Q: Is it normal if the machine body and top cover are scratched after use?

A: As your machine will inevitably be slightly scratched and impacted during use, it is subject to normal trace of use that will not present an impact on product performance.

4. Q: What's the height of the machine?

A: The machine has the overall height of about 9.6 cm and may not be applicable to areas where furniture is 10 cm high or below.

5. Q: What's the diameter of the machine?

A: The machine has the diameter of 34.5 cm and may not be applicable to areas with width lower than 38 cm.

6. Q: What's the small brush in the right of the machine?

A: This is the side brush of the robotic vacuum cleaner. The side brush, when running, is mainly used to sweep waste along the wall or barrier up to the bottom of the main brush, which is then suctioned into the dust bin.

7. Q: Is it normal that the loose portion in the front of the machine is movable?

A: The structural member in the front side that can be compressed is a bumper. This is an important sensor structure that helps the machine to detect a barrier in the range of 180 degrees in the front. A barrier in the front can be effectively detected with a slight physical impact.

8. Q: Why does a circular orange rotating portion protrude from the top? Is it normal that the top cover can be pushed? Is it normal that the top cover is loose?

A: The protrusion portion set on the top is the core component of the machine, i.e. LDS (laser distance sensor). It rotates constantly at 300

RPM to obtain topographic data around the machine itself. Outside the laser distance sensor is its protective cover. On the bottom of the LDS top cover is the LDS cover bumper sensor which is capable of detecting any foreign matter that may get stuck in the laser head and of automatically returning back to prevent machine jamming.

9. Q: What's the hole in the front of the machine?

A: This is the recharge sensor of the machine which will align the machine to the charger for recharging.

10. Q: What are two sides in the rear of the machine?

A: In the left of the machine tail is **air outlet** and in the right is the speaker. The black thing visible inside the air outlet is the soundproof sponge that is used to reduce the noise in the air outlet.

11. Q: What are two metal tabs on the bottom of the machine?

A: Two metal tabs on the bottom of the machine body are positive and negative terminals of the charging contact, which contact the charging tab of the charging dock to realize the charging function.

12. Q: What's the black area on the charging dock?

A: This is the signal transmission area for the charging dock where the IR

recharge signal is transmitted to lead the machine to align with the recharge port for charging.

13. Q: What is the metal strip that can be pressed on the bottom of the charging dock?

A: This is the charge tab of the charging dock. It contacts the charging contact on the bottom of the machine body to implement the charging function and is flexible to ensure better contact.

14. Q: What is the capacity of the water tank? What is the difference between the previous bionic water tank?

A: S5 MAX uses an electronically controlled water tank with a capacity of 290ml. The drawer type mop bracket is installed along the original drawer design of the stone sweeping machine. The sweeping and towing switch does not need to flip the fuselage or disassemble the water tank, which is convenient and quick. The mop support constant pressure mopping design, the mopping pressure is not affected by the amount of remaining water, ensuring the mopping effect. It has a larger capacity than the bionic water tank and a stronger downforce.

15. Q: What's the movable wheel set on the bottom front of the machine body?

A: This is the omni-directional wheel that can be rotated 360 degrees. Its

outside is finished with flexible materials to effectively prevent scratch on a floor.

16. Q: What's the purpose of the transparent long adhesive tape on the bottom of the main brush cover?

A: The adhesive tape on the bottom of the main brush cover is the sealing strip. When the machine runs, the sealing strip, together with the floor, forms a stable and closed high static pressure space to improve dust collection effect.

17. Q: What's the purpose of the 4 transparent windows on the bottom of the machine?

A: These are cliff sensors. The machine uses these 4 IR sensors to sense cliff regions to prevent falling.

18. Q: What's the purpose of a handful of black hair on the side brush and main brush cover?

A: This is the hair isolation bundle to prevent hair twining. It is a patented design and useful to prevent intrusion of hair into the bearing that can result in overheating or jamming.

19. Q: What's the purpose of the black rubber in two sides on the bottom of the main brush cover?

A: This is the wear pad of the main brush cover. The soft rubber pad will effectively avoid direct contact of the main brush cover with the floor that may result in scratch.

20. Q: Is it normal that the main brush structure on the bottom is free to move up and down?

A: Yes. To realize seamless cleaning, the floating main brush system used can automatically well fit the topography on a rugged ground to improve cleaning effectiveness.

21. Q: What's the purpose of the transparent film exposed when the main brush is removed?

A: This is the dust pick-up hose structure that can be smoothly connected to the floating main brush and dust bin and also effectively prevent intrusion of waste into the dust bin regardless of moving up or down.

22. Q: What's the purpose of the iron wires on the main brush cover?

A: These two stainless steel wires are mainly used to prevent cable

winding or intrusion of large-volume waste.

23. Q: What's the purpose of the white label on the bottom screw?

A: This is a tamper label that should not be removed or damaged; otherwise, this will void your warranty.

24. Q: What's the purpose of the hole in the right of the machine body?

A: This is the wall sensor of the machine. It is a high-precision distance sensor used to achieve high precision along-wall cleaning by precisely controlling the distance between the machine body and the wall.

25. Q: Why are two wheels of the machine free to move up and down?

A: Inside the wheels is a suspension system that can provide sufficient downward pressure for the machine body to help the machine to cross an obstacle.

26. Q: Why is the tread pattern of the machine designed to be serrated?

A: For an off-road tire of 70 mm in diameter, the serrated tread pattern design can effectively improve the obstacle performance of the machine.

27. Q: Is it normal that the side brush and bottom cover are scratched?

A: During use, the side brush may be deformed when running into an obstacle or the bottom cover may be rubbed. This is normal trace of use and will not present an impact on product performance.

28. Q: Is the upper cover of the machine rugged, or is it easily broken?

A: Both the **upper cover** and its joint point are made of resilient materials. The upper cover will not be easily broken except for malicious damage.

29. Q: Is the upper cover wear resisting?

A: The In-Mold Decoration by Roller (IMR) technology is used for the upper cover such that the surface is very smooth and flat and will not be scratched except for malicious damages such as use of a hard object or pointed object.

30. Q: What should I do when the laser head protective cover of the machine is easy to be stained?

A: As this is the highest point of the machine, it is hard to avoid being scratched by the bottoms of some furniture, but this will not present an impact on the machine performance. If you still care, you can make some

circular films by yourself to protect it.

31. Q: What's the black soft rubber ring set on the dust bin and what's the purpose?

A: The black soft rubber ring set on the dust bin is the seal ring formed by using the FIP process that features tight sealing and dust proof ability. The dust bin is closely mated with ducts in two sides with the help of the FIP seal ring.

32. Q: Why is only one side brush provided rather than two?

A: Firstly, the side brush of the robotic vacuum cleaner is mainly used to clean waste accumulated along a wall or at the root of an obstacle. The side brush is not a main cleaning structure when cleaning in other areas. For example, for non-wall cleaning, if the side brush always runs in high speed, it may make the waste fly about. The side brush can be dynamically regulated and the speed of the side brush will be reduced for non-wall cleaning to prevent waste flying about. Secondly, it is designed in such a way that only one side cleans against a wall or the root of an obstacle and the side brush is not required in the other side. Finally, if two side brushes are designed, when cables are twined, two side brushes running in reverse direction are more easily to be twined such that the machine can be easily twined. From the above, only one

side brush is designed.

33. Q: Will the machine be affected by some deformation/damage of the packing box?

A: The outer container may be deformed or damaged due to in-transit squeezing or vibration. Inner packing boxes and liners have been subject to strict drop and vibration tests and will provide good protection over the machine and ensure the machine inside will not be affected in any manner. Please be assured to unpack and use the machine.

34. Q: What is the capacity of the water tank? What is the difference between the previous bionic water tank?

A: S5 MAX uses an electronically controlled water tank with a capacity of 290ml. The drawer type mop bracket is installed along the original drawer design of the stone sweeping machine. The sweeping and towing switch does not need to flip the fuselage or disassemble the water tank, which is convenient and quick. The mop support constant pressure mopping design, the mopping pressure is not affected by the amount of remaining water, ensuring the mopping effect. It has a larger capacity than the bionic water tank and a stronger downforce.

35. Q: After opening the box, I found water stains in the water tank or the body inlet and outlet. Is it normal?

A: Our robots are rigorously tested before leaving the factory, including testing waterways and tank sealing performance, so there may be slight water residue remaining, which is normal.

36. Q: What are the upgrades of S5 MAX over other S series?

Hardware:

1. Map saving function, intelligent partition function
2. Regional editing
3. According to the partition dynamic zigzag coverage
4. Software virtual wall / restricted area experience optimization
5. Manually specify area cleaning
6. Regularly clean the specified area
7. Noise optimized design
8. The water volume of the electronic control tank is more stable
9. Large water tank capacity
10. Air duct optimization, smoother air outlet

Software:

1. Room custom cleaning and mopping

2. Increase no-mopping zone function

## Use-related

1. Q: What's the best location to set the charging dock?

A: The charging dock should be set in such a way that about 0.5 m in left and right each, 1.5 m or more in the front are reserved, with its backside against the wall. It is generally recommended to set the charging dock in your living room that is generally spacious. Do not set the charging dock in a confined and congested place.

2. Q: Is a bumper strip required?

A: The machine is provided with a laser distance sensor, allowing the machine to automatically reduce its speed in most instances. In addition, the bottom of the machine is provided with a bumper strip. As impact is very slight at home, an additional bumper strip is not required. At the same time, if the ultrasonic sensor or wall sensor is blocked by your purchased bumper strip, the machine may not work normally.

3. Q: Is it suitable for solid wood/composite/archaized/tile floor?

A: Well, the machine works well on all these floors and will surely not scratch them.

4. Q: What should I do when I feel it is too noisy?

A: As a product that truly helps you to clean your home thoroughly, it is normal to makes some operating noises. You can download Roborock app, connect it to your machine and then select the silent mode, or remotely start the machine when there's no one at home.

5. Q: Can it clean effectively?

A: The floating main brush structure of the machine is capable of fitting closely onto the floor to take waste into the dust bin; the high power fan provides high negative pressure to collect dust; the self-regulating side brush is capable of cleaning waste along the wall and in front of furniture; the path programming navigation algorithm allows the machine to cover all areas to clean; the combination of the features above ensures its good cleaning effectiveness.

6. Q: How long will it take to clean my home?

A: It depends on operating time, room size, furniture arrangement, etc.

In generally, it takes not more than 60 minutes to clean a 100 sq. m. room, and may be shorter if furniture is well arranged and there is little waste.

7. Q: Is it suitable for overseas markets?

A: The power supply works well in the range of 100-240V/50-60HZ and thus can be used in overseas markets.

8. Q: Is timer cleaning supported? How to set it?

A: Yes. Please download Roborock app and connect it to your machine. On the Setting option, you can add timer operation. After setting, the set timer cleaning will not be affected regardless of whether the machine is connected to Wi-Fi.

9. Q: Is it suitable for a carpet?

A: It works well on undercoat or suede carpets, but may not be suitable for some shag carpets or dark carpets because shag carpets may block the cliff sensor on the bottom of the machine, thereby making the machine regard it as a cliff that it should avoid. This is also true for some dark carpets that may have good light absorption ability.

10. Q: What should I do when it frequently gets stuck in a balcony?

A: In case that the machine gets stuck in a balcony due to a small step, it is recommended to buy a dedicated virtual wall or set up no-go zone on the app to prevent getting stuck.

11. Q: What should I do when it frequently gets stuck in the same place and reports an error?

A: Please check whether this place has the width or height basically the same as that of the machine. If so, it is recommended to buy a dedicated virtual wall or set up no-go zone on the app to prevent the machine entering this area.

12. Q: What should I do when it always travels with a waste bin or a slipper?

A: Well. **It is hard for the machine to sense a light object.** Please collect other things on the floor before the machine works, to prevent these objects being pushed or pulled during operation.

13. Q: Can I move the machine when it is working?

A: You can pause the machine midway and make it move in a small range. However, for a long movement distance, the machine may restart

cleaning due to path programming failure.

14. Q: Can it work normally in a completely black environment?

A: Of course. All sensors attached on the machine body can work well in a completely black environment.

15. Q: Is 5GHz Wi-Fi or 802.1x verification mode supported?

A: Only 2.4GHz Wi-Fi is supported; ways of encryption requiring input of user name like 5G and 802.1x are not supported.

16. Q: What should I do when the machine draws water?

A: Please remove the dust bin and main brush of the machine, use dry cloth to wipe water off and then dry the machine in a well ventilated place. Remove the filter on the dust bin and flush the dust bin and filter with tap water. After drying, reinstall them. **It should be noted that the filter should be completely dried before reuse; otherwise, the filter may be frequently blocked.**

17. Q: Can it automatically empty the waste?

A: No. Please regularly manually clean the dust bin.

18. Q: Will your private information be public?

A: No. All data is stored in your machine. User map or other data will surely not be uploaded to the server. If you check the Customer Experience Improvement Program, **part of error logs will be uploaded to the server to help us further improve our products.**

19. Q: Is there a potential risk of electric shock when touching the charging dock?

A: No. Firstly, the charging dock outputs no current except when the machine is connected; **secondly, the charging dock without the machine has the output voltage of DC 4.2 V** which is far less than 36 V, the safe voltage for human body; finally, please be assured that the charging dock is provided with short circuit and current leakage protection features such that it can be automatically powered off in abnormal situations.

20. Q: What's the flashing red light when seeing the laser distance sensor (LDS) with naked eyes, and is it harmful to my eyes?

A: The red light is the ranging laser emitted from the LDS and is certified in accordance with IEC 60825-1:2014 laser safety level Class 1. Please be assured that the emitted laser power dissipation is too low to be harmful to children or pets.

21. Q: Why does the robotic vacuum cleaner neglect some locations (for example, the 2 mm balcony with black floor is neglected)?

A: 1. Dark floors or dark carpets absorb light such that the machine may regard them as cliff which it should avoid; thus, these areas may be neglected

2. If there is dust on the cliff sensor, the cliff sensor may be wrongly triggered for non-dark floors. Please use soft & dry cloth to carefully clean the 4 cliff sensors on the bottom of the machine and then try again

3. Some places may be missed if the wall sensor is dirty. Please clean the wall sensor in the right of the machine.

22. Q: What is the sound level of the robotic vacuum cleaner?

A: When measuring at 1 m away, the sound level is between about 53 and 61 dB. It may have a slight difference depending on machine model.

23. Q: How long will the robotic vacuum cleaner take to charge?

A: About 240 minutes for 20->80%

24. Q: Will tire's trace be left on the floor behind the robotic vacuum cleaner

A: The tires of the robotic vacuum cleaner are made of flexible materials and on the bottom of the main brush is a cushion rubber; in addition, the face of the omni-directional wheel is also made of flexible materials.

The machine has the total weight of 3.5kg and thus will not scratch the floor in normal use condition.

25. Q: What should I do when the machine works noisily?

A: The omni-directional wheel is noisy mainly because there is too much dust under the bed or sofa at your home for the first two times. It is recommended to remove the omni-directional wheel to clean dust inside the bearing and use cotton swabs to remove particles inside the bearing hole.

Foreign matters are drawn into the main brush or small solid particles are suctioned into the dust bin. Please clean the main brush or empty the dust bin

The machine clatters when retreating or turning around because on a floor, in rare situations, black wear pads in two sides of the main brush cover rub against the floor when retreating or turning around.

This requires no special treatment in normal condition. Wear pads, after a certain period of time, will have lower friction and thus the noise disappears naturally. If any foreign matter is attached to the wear pads, the noise will disappear after the foreign matter is removed.

The machine clatters transiently when going straight ahead. This may occur when the machine travels over carpets or rugged floors. The floating main brush clatters transiently due to upward/downward setting of ground clearance. This requires no special treatment in normal condition. This may occur to a new machine but only last for a short period of time and will disappear over time.

26. Q: What should I do when there is no water/too little water/too dried cloth for mopping?

A: You can adjust the water volume through the mobile phone app to adjust the default water volume. S5 MAX allows you to set the required suction and water volume. In the daily cleaning, please also clean the mop every time you drag the ground, so as to avoid the dust is too dirty, affecting the water effect.

**In the case of the carpet mode, the electronically controlled**

water tank does not spray water. It is necessary to eliminate whether the robot is cleaning the carpet or the main brush is involved in foreign matter, causing the machine to enter the carpet mode.

27. Q: What should I do when there is high water flow/too much water/too wet cloth?

A: You can adjust the water volume through the mobile app, reduce the default water volume, and S5 MAX allows you to set the required suction and water volume. After cleaning the mop, it is recommended to wring the mop, too much water in the mop will cause water stains on the floor.

28. Q: Is it normal that the machine slightly tilts after recharging?

A: It is normal that the machine slightly tilts left or right and its use and charging operation will not be affected as long as normal charging is possible.

29. Q: Why does the machine try two or three times to interface with the charging dock for successful recharging?

A: Please check whether the charging contact area on the bottom of the machine is dirty, which may result in charging failure. If any, please clean it.

31.Q: Is it normal if there is a crack in the machine's wall sensor?

A:The crack in the machine's wall sensor is weld line , non-quality problems.

## **Hardware and structure-related**

1. Q: What's the detection range and precision of the laser head?

A: The laser distance sensor has the precise ranging scope within 6 m and has the precision accurate to  $\pm 1\%$  of error within 3 m, that is, less than 1 cm in 1 m.

2. Q: Is the laser sensor harmful to children or pets?

A: It is designed in accordance with IEC 60825-1:2014 laser safety level Class 1 and will not generate hazardous radiation. Please be assured that this is tested in TÜV Rheinland in Germany and described in the Manual.

3. Q: Is dust detection feature provided?

A: No. As a home frequently using the machine will be very clean and tidy, the dust detection feature is not practical or effective yet. In addition, the dust detection feature may present high failure rate and the sensor may be easily covered or blocked by dust that may result in misjudgment; thus, this kind of sensor is not designed.

4. Q: What kind of fan is used and what is the suction capacity?

A: A world-class brushless fan manufactured by NIDEC is used, with the suction capacity up to 2000 Pa, more than two times of that of general robotic vacuum cleaners available in the market.

5. Q: Is dust full detection provided?

A: No. If the dust bin is left uncleaned for a prolonged period of time, the machine will give a voice prompt to ask you to clean the dust bin and your mobile phone will also send you a message to ask you to clean the

dust bin. Dust full sensors used in other commercially available products are easily blocked by dust and thus frequently make misjudgment that the dust bin is full.

6. Q: Will long-term charging consume more power? Will overcharge shorten the service life of the battery?

A: Charging stops after the battery is full. The motherboard is powered directly from the charging dock and the battery is in standby mode and thus the battery performance will not be affected. The machine has very low power consumption (less than 3 W) when it is inoperative. To maintain the best performance of the battery, please try to keep the machine interfaced on the charging dock when it is left unused.

7. Q: Why does charging take more time in summer?

A: The machine is designed with a perfect charge & discharge management system. In summer, the battery may be hot immediately after cleaning. To extend the service life of the battery and ensure charging safety, charging will start only after the battery temperature reduces. Thus, it is normal that charging takes more time in summer.

8. Q: Why does power-on fail in winter?

A: Please ensure that the machine operates in an environment with temperature not less than 0°C; otherwise, the machine may be

impossible to be powered on to protect the battery. In this regard, it is the same as the battery protection mechanism in low temperature used in Apple phones.

9. Q: Will the laser head be damaged due to the interference from the full-length mirror?

A: No. Please be assured that the full-length mirror will not present any impact on the cleaning operation of the machine.

10. Q: How long can it work in full charge state?

A: It depends on operating time, floor material and mode of operation. For a common floor without a carpet, the machine in full charge state can work for about 2.5 hours in standard mode, shorter time in Strong mode and longer time in Silent mode.

11. Q: Is electric motor overload protection mechanism available?

A: All electric motors are provided with a motor overload protection mechanism, including side brush motor, main brush motor, main wheel motor, LDS motor and vacuum cleaner fan motor.

12. Q: What's the RPM of the side brush, main brush and fan?

A: The side brush can be dynamically regulated and works at 330 RPM along a wall and 130 RPM in other conditions. The main brush works at 1350 RPM while the vacuum cleaner fan in standard mode works at 12000 RPM.

13. Q: What kind of lithium battery is used and what's the capacity?

A: LG/Panasonic 18650 cell type lithium battery with capacity of 5200 mAh and voltage rating of 14.4 V.

14. Q: What's the purpose of the floating main brush structure?

A: On a non-level floor, the floating main brush structure will fit well to the floor according to topographic change, thereby ensuring good cleaning effect and the maximum negative pressure for dust collection.

15. Q: Do I have to power the machine off after cleaning?

A: No. The machine will automatically return to the charging dock after cleaning for recharging, and in full charge state, the machine is directly powered by the charging dock and will not consume the battery power.

This is beneficial to extend the service life of the battery.

16. Q: Can the machine still work after the main brush is removed?

A: The machine itself will not fail to work due to an error and can still work without the main brush, but, without the main brush, the cleaning effect is reduced. This is not recommended.

17. Q: Will the magnetism of the virtual wall be reduced overtime?

A: The magnetism can be well maintained overtime, except for working in a high temperature environment or long-term reversing field.

## **Software & Algorithm-related**

1. Q: Why does the machine turn around rather than going straight ahead in an open field?

A: The machine is so smart that it will clean the floor area by area. Turning around in an open field indicates that the machine reaches the border of an area, outside of which will be divided into the next working area and thus will not be missed.

2. Q: Why does the machine decelerate in an open field?

A: In the exceedingly rare occasions, highly reflective objects such as electric appliances with mirror surface or highly reflective furniture in a house environment will generate some interference on the laser distance sensor. The machine will mistakenly take it as a barrier in the front and thus decelerate. This generally may last for a short time and thus will not affect the operation and cleaning of the machine. The other situation is failure of the ultrasonic sensor due to dirt. The machine may mistakenly take it as a barrier in the front and thus decelerate frequently. In this case, clean the ultrasonic sensor.

3. Q: Why is the machine not designed to fully avoid impact on furniture?

A: To obtain the best cleaning effect, the machine is designed to work in extreme distances. Without impact, trash at the root of furniture may not be effectively collected. For this reason, the machine is designed in such a way that it can slightly impact furniture to ensure the best cleaning effect. However, please be assured that, as the machine is provided with an ultrasonic sensor and a laser distance sensor, most of furniture can be properly identified and the machine will decelerate when impacting on them; thus, furniture or the machine itself will not be bruised.

4. Q: Why does the speed of the side brush change frequently?

A: The side brush, when working along a wall or around an obstacle, will run in full speed of 330 RPM to ensure that trash in a corner and at the root of furniture is completely collected. Nevertheless, when running in Z-shape path, it will switch to low speed of 130 RPM in an open field to prevent trash flying about. Dynamic regulation of the side brush will ensure the best cleaning effect.

5. Q: Why is the brush and fan not turned off to recharge the machine?

A: Firstly, to prevent deformation or damage to the side brush due to scratch when the machine goes for recharging; secondly, to prevent trash leakage due to shaking when the machine goes for recharging.

6. Q: Why does the side brush and main brush of the machine reverse?

A: When any twined foreign matter (such as USB cable) is detected, the main brush and side brush of the machine will try to reverse to unwind it. In some cases, the side brush, even not being twined, may also reverse transiently when it hits on some specific obstacles. This is normal.

7. Q: Why doesn't the machine go for cleaning the middle area?

A: The machine will firstly work along the border of the area and then go in Z-shaped path to cover the middle area. Please be patient when it works along the border, and will then go clean the middle area in order.

8. Q: Why does the machine recharge after working twice in my house?

A: If a complete cleaning operation takes less than 10 minutes, the machine will work one more time before automatically going recharge or ending its work to return to the starting point.

9. Q: Why is recharge impossible for the machine after spot cleaning?

A: Spot cleaning requires re-generation of a map, and the previous map and the coordinate of the charging dock will be cleared which may result in failure to return to the charging dock. Therefore, please put the machine back onto the charging dock after spot cleaning.

10. Q: Why does path programming failure happen?

A: If the machine is moved to a place far away from the breakout point, it may fail to locate its own position. In this case, you will be prompted

with "Moved too far away, path programming failed, start cleaning again".

In general, the machine can properly locate its own position and continue working when it is placed near the breakout point.

11. Q: Why can't the machine go clean the room with the door being previously closed?

A: After the machine finishes cleaning around the area border, the room with the door being closed, for the machine, is a general wall or furniture. Therefore, after finishing cleaning, the machine will not try to enter the area whose door is opened thereafter.

12. Q: Why is the machine automatically powered off?

A: The machine will automatically enter the sleep mode with low power consumption when the machine is in standby, pause and error mode and left inactive for 10 minutes. The ring light of the machine body flashes every 8 seconds. The machine will automatically power off after 12 hours or more in sleep mode. In addition, it will automatically power off if the battery has too low capacity.

13. Q: Can timer cleaning be enabled after the machine is powered off?

A: The timer cleaning will not be effective any longer after the machine is powered off until you press and hold the ON/OFF key to power it on or

place the machine onto the charging dock to automatically power it on.

14. Q: Why can't the machine cross a curtain or bed sheet?

A: The laser distance sensor will identify a curtain or bed sheet as an inaccessible area and thus will not try to cross it. To clean it, please collect the bed sheet or curtain to avoid hanging down to the floor

15. Q: Can the machine memorize a map and how to clear the memory?

A: In a cleaning process, the machine will memorize a map, and return to the charging dock if the battery capacity is low and then continue working after charging. The map will be cleared at the end of cleaning, without the need of manual intervention.

16. Q: What should I do when I do not want to continue cleaning or I would like to restart cleaning?

A: Follow the operations below to end and restart cleaning: pick the machine up and put it onto the charging dock, and start cleaning after you are alerted with the message that the machine is charging; press the Recharge key to return the machine to the charging dock, and start cleaning after you are alerted with the message that the machine is charging; press and hold the Clean key to power the machine off and start cleaning after the machine is powered on again; press and hold the

Recharge key to enable spot cleaning and pause it, and then start cleaning.

17. Q: What happen that the machine does not return to the charging dock when I press the Recharge key while the machine is working?

A: The machine will return to the charging dock when you press the Recharge key if the machine go for working from the charging dock. (Recharge may fail due to positioning deviation if the machine is moved midway.)

- 1、 If the machine is not either started from the charging dock or not passing it during cleaning, pressing the Recharge key will return it to the starting point.
- 2、 In a cleaning process, a map is deformed due to continuous unwinding operation on the floor; which may result in recharge of the machine.

18. Q: What is the Virtual wall, the No-go Zone and the No-map zone on APP?

A: You could use the Virtual wall feature and the No-go Zone feature to set up the area that you wouldn't like to clean. You could use the no-map

feature to set up the area that you wouldn't like to mopping.

19. Q: How to set up the Virtual wall, No-go Zone and No-map Zone?

A: Please go to the Settings-Vacuum settings to enable the Map saving mode option. And return to the map interface, click the Edit map option. Then you could set up the Virtual wall, No-go Zone and No-map Zone.

(Note: It's better to edit or delete the Virtual wall, No-go Zone and No-map Zone when the machine is placed on the charger. The minimum area of the No-go Zone and No-map zone can be set up to 0.4m\*0.4m, and the maximum area of the No-go Zone and No-map zone can be set up to 10m\*10m. The minimum length of the Virtual wall can be set up to 0.4m and the maximum length of the Virtual wall can be set up to 10m.

20. Q: How many Virtual walls, No-go zones and No-map zones can we set up?

A: When the machine is online, you could add up to 10 No-go zones, 10 No-map zones and 10 Virtual walls separately. The No-go zones and the Virtual walls can be overlapped.

21. Q: What should we do if the machine still enters the Virtual wall or the No-go zone for cleaning?

A: 1. Please confirm whether the machine has errors voice prompts.

When the machine fails to locate, the map, the Virtual wall and the no-go zone will be cleared directly, so the machine will not judge the Virtual wall and the no-go zone during the cleaning.

2.The positioning of the machine is successful, but the positioning point displayed on the map is different from the actual position, which will also cause the machine to enter the Virtual walls or the no-go zones.

Please reset the map manually, re-edit the Virtual walls or the no-go zones and use it again. It is recommended that you do not move the machine during the cleaning to avoid map positioning failure and the Virtual walls or the no-go zones are invalid.

22. Q: Is it necessary to buy a virtual wall even if the machine could set up Virtual wall and No-go zone function?

A: It is recommended to use virtual walls in dangerous areas such as steps, loft and bathroom.

23. Q: After the map is saved, if the furniture environment changes, will the machine clean the new environment area and update the map?

A: After the map saving feature is enabled, if there are any changes with

the furniture environment in the home, the machine will recognize it automatically, so the machine will clean the new environment area, the map will be updated and the new map will be saved on the APP.

24. Q: After the map is saved, if the furniture environment changes, will it prompt a message to reset the map on the APP before the next cleaning?

A: After the map saving mode is enabled, if the furniture environment changes, the machine will recognize the change of the furniture environment and update the map during the cleaning, but there is no message to reset the map on the APP. If the furniture environment changes obviously, it is recommended to go to the APP's map interface and click Edit map option to reset map before cleaning, the new map will be generated and saved.

25. Q: If the saved map is tilted or overlapped, will it prompt a message to reset the map on the APP before the next cleaning?

A: After the map saving mode is enabled, if the saved map is tilted or overlapped, there will be no message prompt to reset the map before

the next cleaning.

Suggestions: 1. Please move the dock to another place, the place should be at least 0.5 M wide on left and right side, 1M wide on front side. The dock should be up against the wall.

2. Go to the APP's map interface and click Edit map option to reset map before cleaning, the new map will be generated and saved.

26. Q: After the map is saved, if there are some changes with room area, will the map be updated?

A: After the map saving mode is enabled, if one room's door is opened (this room area was not exist on the map at before), the machine will recognize this room area automatically during the cleaning, the map will be updated, and the machine will enter this room to clean automatically. If one room's door is closed (this room was already exist on the map), this room area will also exist on the new map.

27. Q:After the map is saved, what should we do if the machine still establish cleaning routes in the original map when the machine is moved to a new environment?

A: This situation is generally caused by the similarity of the two

environments. It is recommended to go to the APP's map interface and click Edit map option to reset map before cleaning, the new map will be generated and saved.

## Mobile Phone-related

1. Q: What should I do when Wi-Fi connection timeout always occurs?

A:

Please check that the Wi-Fi password you input is correct

Please check that the machine works within the coverage of your router

Please check that Roborock app has been updated to the latest version

Please check that your router is correctly connected to the Internet

Please check that white list or black list (IP, MAC) filtration is not enabled for your router

Please check that the DHCP for your router is properly enabled

Please check that there are sufficient IPs to be assigned to your router

**It would be best if no Chinese character or special character is included in username**

2. Q: What should I do when the machine frequently gets offline?

A:

Please check that the machine works within the coverage of your router, especially when the machine works out of the Wi-Fi coverage range

Please check that the network of the broadband service provider works normally

**Is timer rebooting of your router is set?**

3. Q: What should I do when the machine cannot be found in Roborock app?

A:

Press and hold the Clean key and also the Recharge key until you are alerted with the "Reset Wi-Fi" voice prompt

Get your mobile phone close to the machine within 1 m, and then open Roborock app

Wait until the robotic vacuum cleaner is detected and then connect it to the Internet

Please check that the positioning permission of Roborock app is not disabled

4. Q: What should I do when the machine displays an inaccurate battery capacity?

A: Please firstly charge it to 100% and calibrate it before use. The battery capacity displayed will be more accurate.

5. Q: Why is the direction of the map changed frequently?

A: The map of the robotic vacuum cleaner is generated in real time according to data collected by sensors attached to the machine body. The map generation process may be affected when an environment changes; therefore, the direction of the generated map may also change accordingly. Please be assured that this will not influence the cleaning effect of the machine.

6. Q: What should I do when the map or path is askew?

A: The map takes the environment near the starting point as a reference. If there are a few other things near the starting point, the coordinate of the reference may be in poor condition. In this case, please move the dock charge to an open field to change this situation.

7. Q: How many times in a day can timer cleaning be set for the machine?

A: The machine supports up to 10 timer cleaning activities.

8. Q: What's the purpose of the DND (Do Not Disturb) mode?

A: After the DND mode is enabled, if the machine automatically recharges due to low battery capacity, the machine will not continue cleaning after the battery capacity is sufficient, all passive voice prompts (such as reporting an error) will be unavailable and the brightness of the ring light will reduce. The DNS mode will be disabled once the cleaning starts or there is any active operation (such as removing the dust bin). The machine will enter the DND mode again if it is left inactive for a certain period of time. This mode is enabled in the factory and effective between 22:00-08:00 by default, which can be enabled or changed by using your mobile phone.

9. Q: What's the purpose of the machine positioning feature?

A: From your mobile phone, when you click "Position Machine", the machine will tell you its location via a voice prompt. When the machine reports an error from a place you cannot find in some cases, this feature is useful to quickly locate the machine.

10. Q: Is it normal when the path seems repetitive?

A: The map path indicated on your mobile phone may include some

inter-area or intra-area movement routes that may be partially repetitive, in addition to normal cleaning. The machine will not carry out repeated cleaning.

11. Q: Are spot cleaning records not shown in cleaning records?

A: Spot cleaning records are not included in the cleaning records.

12. Q: How long can cleaning records be retained?

A: Records can be retained up to seven days.

13. Q: Can notifications be blocked from the APP?

A: From your mobile phone, when the "Notification ON/OFF" switch is set to OFF, any notification about the machine will be blocked.

14. Q: Why is the button in APP delayed for a long time?

A: When the machine runs in an area with poor Wi-Fi coverage, the command issued may fail or be delayed for some time. In this case, this situation can be effectively improved by using a router having higher signal intensity or using a signal amplifier.

15. Q: What should I do when firmware update fails/update stops?

A: Please update the Mi Home client to the latest version. An old client version may fail to normally display firmware update tips. If the network has poor signal, downloading OTA package may fail or time out. Please place the machine and charging dock near your wireless router and try again. Check that the machine is connected to the charging dock and being charging and that the battery capacity is higher than 20%, and then try again. If update stops, please wait for another 20 minutes and then try again.

16. Q: Is multi-router roaming supported?

A: Yes, but please ensure that all routers use the same SSID (i.e. wireless signal name of these routers) and login password. Roaming among routers using different SSIDs and passwords is impossible.

17. Q: Is Wi-Fi amplifier/relay supported?

A: Yes.

18. Q: What's the 3G/4G traffic consumption for the mobile phone?

A: About 20 MB of traffic is required every 1 hour on the map page, with

almost no traffic consumption on any other page.

19. Q: Can the machine be connected to several devices at a time?

A: Yes. You are allowed to use the same Xiaomi account to log into different devices and also to view and control your robotic vacuum cleaner on your Android OS-based or iOS-based mobile phone or tablet PC.

20. Q: Is the machine connected to only one mobile phone or tablet PC? How to have it remotely controlled by my family members?

A: You can either use the same Xiaomi account to log into different devices, or share your machine with your family members via "General - Share Device" in your mobile phone. However, some features of the shared device can only be available on the primary account.

21. Q: What should I do when the machine cannot automatically start working even if the timer cleaning is enabled?

A:

Please check that the machine is powered on as the timer cleaning is ineffective when it is powered off

Please check that the battery capacity is higher than 20% as the timer cleaning is ineffective when the battery capacity is lower than 20%; it is recommended to keep the machine be seated on the charging dock and work in standby mode uninterruptedly

Please check that the cleaning timer is correctly set; for example, if it is set to "Once", the setting will not be effective any longer after being executed once, or if it is set to "Workday" and the current day is a weekend day, the timer cleaning will also be ineffective.

22. Q: Why can't the firmware be updated to the latest version at a time?

A: The firmware update involves a key update package. It means that when updating from version A to version C, version B cannot be neglected to check version C updates. Updates should be carried out in the order of A->B->C, rather than A->C.

23. Q: Why can't the APP map be updated?

A: 1, Internet connection is essential for obtaining the map of the robotic vacuum cleaner; the map may not be refreshed successfully in a poor Internet condition.

2. The map of the robotic vacuum cleaner can be obtained only when the cleaner works within the coverage of Wi-Fi; the map may not be

refreshed successfully when the machine itself is located underneath a sofa or far away from your router

3. Domain name resolution of the map server is not well supported for some routers and operators such that refreshing the map always fails. In this regard, the company will promptly offer a solution to resolve this technical problem. The customer center can try to help a user to change the DNS of the router to 114.114.114.114 to test the effectiveness

If the problem persists, the customer center can refer the user to the technical support team

24. Q: Can the machine work normally when moving from Wi-Fi coverage area to Non-Wi-Fi coverage area during cleaning?

A: Wi-Fi is only used to communicate the machine with your mobile phone and to upload map path data. Loss of Wi-Fi can only result in failure of your mobile phone to get cleaning data, rather than affect the cleaning operation itself. The machine still works normally without Wi-Fi connection.

25. Q: What do the green, yellow and red points on the APP map interface indicate respectively?

A: The green point indicates the charging dock, the yellow one indicates

the machine and the red one indicates the loading data of the map.

26. Q: Why does iOS-based APP always re-load a plug-in every time?

A: If your iOS-based mobile phone has insufficient free space, some cache files will be automatically deleted. A plug-in may be deleted by the system. Please retain sufficient free space for your mobile phone.

27. Q: Why I am alerted with "Device Initialization Failed" when clicking the machine on the Device List page for iOS-based version APP?

A: The Roborock app version is old. Please update it to the latest version.

28. Q: Is unencrypted Wi-Fi supported?

A: So far, it has been only supported by Android OS-based devices but not for iOS-based devices. This feature will be added in the near future.

29. Q: APP issue summary for different mobile phone models

A: 360 mobile phone: Roborock app positioning service permission may be automatically disabled by your mobile phone such that the APP connection problem is resulted. (The machine appears in the Wi-Fi list but invisible in APP)

iPhone: The "capitalize the initial letter by default" feature is enabled such that the password is incorrect and Wi-Fi cannot be connected.

30. Q: The robotic vacuum cleaner will be automatically offline in the following day after the Wi-Fi is normally connected

A: Please disable the router auto-reboot function if any. In some cases, rebooting of the router may result in failure of the machine to connect to the router.

## Troubleshooting-related

All troubles should be identified by users: please power off and on to check whether troubles are eliminated.

1. Q: What should I do when error 1 occurs?

A: Error 1 indicates that the laser distance sensor is faulty, please:

1. remove the cover on the laser distance sensor on the top of the machine, and start the machine to continue cleaning
2. press and hold the OFF key to power the machine off, and then start the machine again to continue cleaning
3. If the laser distance sensor does not rotate, use your finger or tool to toggle the laser distance sensor to check that no foreign matter gets

stuck in the laser head, and then start the machine to continue cleaning

2. Q: What should I do when error 2 occurs?

A: Error 2 indicates that the bumper gets stuck. Please use your hands to slightly tap the left and right sides and peripheral region of the bumper in the front of the machine to check that the bumper can be normally pressed down and rebounded. Remove the foreign matter (if any) preventing the bumper being rebounded.

3. Q: What should I do when error 3 occurs?

A: Error 3 indicates that the running wheels of the machine are suspended. Please check whether the machine draws any foreign matter or travels against a barrier, and remove it if any.

4. Q: What should I do when error 4 occurs?

A: Error 4 indicates that the cliff sensor is faulty: Collect the dark carpet where the error may occur or use a virtual wall for blockage. This error may occur when the dirty cliff sensors on the bottom are dirty or blocked. In this case, use dry cloth to clean them up.

5. Q: What should I do when error 5 occurs?

A: Error 5 indicates that a foreign matter may get stuck in the machine. Please remove the main brush to clean the brush and also the bearing

and then reinstall them. This error may also occur to some shag carpets. Please collect these shag carpets or use a virtual wall to prevent the machine working on these shag carpets.

6. Q: What should I do when error 6 occurs?

A: Error 6 indicates that the side brush motor is overloaded because the side brush is twined by foreign matters. Please stop the machine and remove twined foreign matters. If the problem persists, please use a Phillips screwdriver to remove the side brush for troubleshooting.

7. Q: What should I do when error 7 occurs?

A: Error 7 indicates that the main wheel motor is overloaded because the main wheel gets stuck: Check whether the main wheel is twined; if so, manually reverse the main wheel gently to remove foreign matters; If the machine gets trapped and stops moving, pull the machine out and continue cleaning. If the machine frequently gets trapped in some special terrains, please use a virtual wall or chair for blockage.

8. Q: What should I do when error 8 occurs?

A: Error 8 indicates that the machine gets trapped in a space: The door is closed when the machine enters a room; please open the door and continue cleaning; if the machine gets trapped in a confined space, take the machine out and continue cleaning. If the machine frequently gets

trapped in some special terrains, please use a virtual wall or chair for blockage.

9. Q: What should I do when error 9 occurs?

A: Error 9 indicates that the machine detects that the dust bin or filter is not installed: reinstall the dust bin or filter if necessary; a non-genuine filter purchased from a third part is used. Please buy a genuine filter from Roborock store.

10. Q: What should I do when error 10 occurs?

A: Error 10 indicates that the machine detects that the filter is blocked: If the dust bin is full, empty the dust bin; if the filter is blocked, please carefully clean the filter; if the filter is used for more than 3 months, please replace it; if the machine draws water or the filter is flushed with water, please replace the filter.

11. Q: What should I do when error 11 occurs?

A: Error 11 indicates that the machine detects a intense magnetic field when starting: the starting point may be too close to a virtual wall; please move the machine and start it in another place; the machine starts with a intense magnetic field, such as speaker or floor-mounted socket; please move the machine and start it in another place.

12. Q: What should I do when error 12 occurs?

A: Error 12 indicates that the battery capacity is too low. Please put the machine back onto the charging dock for charging before use.

13. Q: What should I do when error 13 occurs?

A: Error 13 indicates that machine charging failure: poor contact results because the charging area is dirty; please clean the charging contact in the machine tail and the contact tab of the charging dock after power off and disconnection from the charging dock; poor contact of the power cable of the charging dock. Please check whether the power cable is inserted in place; the charging dock is placed on an uneven floor or on a carpet. Please place the charging dock on a level and hard floor and lean against a wall

14. Q: What should I do when error 14 occurs?

A: Error 14 indicates that the machine detects battery failure. Do not use the machine in extremely low (0°C or below) or extremely high (40° or above) temperature condition. When the battery detects temperature exception, the machine will automatically power off to ensure battery safety. Please move the machine to a room temperature environment for a certain period of time and try again.

15. Q: What should I do when error 15 occurs?

A: Error 15 indicates that the machine detects wall sensor failure. Please use soft dry cloth to carefully clean the wall sensor in the right of the machine and continue working.

16. Q: What should I do when error 16 occurs?

A: Error 16 indicates that the machine detects excessive tilt when starting. Please start the machine on a level floor.

17. Q: What should I do when error 17 occurs?

A: Error 17 indicates that the machine detects side brush module failure. Please stop the machine and flip it over. Use your finger to grasp the side brush and forcedly forward and reverse it for a few times repeatedly to eliminate this failure.

18. Q: What should I do when error 18 occurs?

A: Error 18 indicates that the machine detects that dust collection fan failure. If the fan works noisily, please stop use and contact the after-sales service center for a solution.

19. Q: What should I do when error 19 occurs?

A: Error 19 indicates that the machine cannot be powered after being

connected to the charging dock. Check that two ends of the power cable of the charging dock (rear side of the charging dock and mains supply port) are inserted in place. Please clean the charging contact of the machine and the charging tab of the charging dock. If these portions are dirty, the charging dock will not supply power to the machine. Check that the power cable of the charging dock is not scratched or broken, and replace it if necessary.

20. Q: What should I do when error 21 occurs?

A: Error 21 indicates that the LDS cover bumper sensor on the top of the machine is pressed or gets stuck. Please remove any foreign matter to ensure the top over can be normally pressed down or bounced.

21. Q: What should I do when error 22 occurs?

A: Error 22 indicates that the recharge sensor of the machine may be dirty. Please clean it to ensure that it can correctly receive the recharge signal. This error occurs if the machine is disconnected when retreating from the charging dock or the charging dock is moved away.

22. Q: What should I do when I get a message from the machine that it fails to return to the starting point?

A: It indicates that the machine runs into a barrier that cannot be crossed when returning to the charging dock or starting point, please:

check whether the room door is closed; check whether the machine gets trapped in a lower area; check whether the machine travels with a movable barrier that blocks its passageway.

23. Q: What should I do when I get a message from the machine that the filter is blocked when I remove the dust bin?

A: It indicates that the filter is partially blocked (error 10 occurs when the filter is completely blocked); **carefully clean the filter and check that the filter is not dampened**

24. Q: What should I do when I get a message from the machine that recharge fails and please move the charging dock to an open field?

A: This message appears when there is a barrier near the charging dock. Please ensure that 0.5 m or more in two sides and 1.5 m or more in the front of the charging dock are retained.

25. Q: What should I do when I get a message from the machine that the charging dock cannot be found and please move the machine to be close to the charging dock?

A: If no charging dock is available in the whole cleaning environment, the

machine will return to the starting point after cleaning, and alert you with a message that the charging dock cannot be found and please move the machine to be close to the charging dock and try again.

26. Q: What should I do when the machine works abnormally and always knock into a wall or furniture?

A: Very occasionally, the machine may have positioning deviation. Please pause the machine and put it back onto the charging dock and try again.

27. Q: What should I do when failing to power the machine on?

A: This involves many possibilities: check whether it is resulted from battery low protection; connect it to the charging dock and put the machine onto the charging dock to check whether it can be normally started. The machine does not work in the temperature range of 0-40°C. Too high or low temperature will result in the condition that the battery is protected. Please check that the operating temperature is restored to 0-40°C and kept for a certain period of time, and then try again.

28. Q: What should I do when the boot sound is unavailable and the ring light is white breathing after power on?

A: It indicates that the machine fails to load all modules: remove the machine from the charging dock, and then press and hold the Clean key

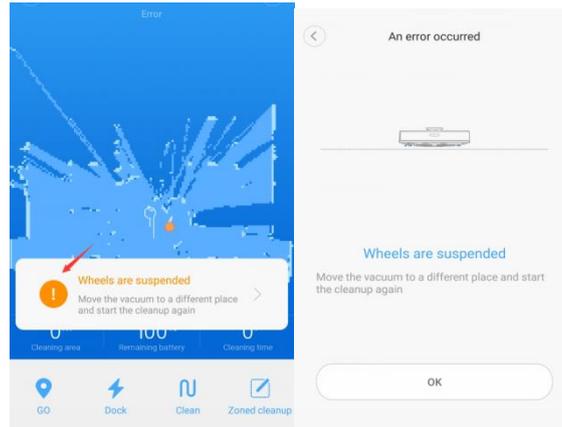
for more than 10 seconds for forced shutdown. Wait until the ring light is off. Press and hold the Clean key again to power it on to check whether the machine resumes operation. With the ring light on, use a clip or other sharp object to stick the Reset key to check whether the machine resumes operation. If the problem persists after the steps above are completed, with the ring light on, press and hold the Recharge key while using a clip or other sharp object to stick the Reset key, until "Restoring the original version" sounds. After restoring the original version, try again to check whether it can be normally powered on.

29. Q: What should I do when the machine travels along an exceptional path (circular motion)?

A: This may be caused by blockage of the sensors. It is recommended to remove dust on sensors, including outside screens of wall sensor, cliff sensor and ultrasonic sensor.

30. Q: What should we do if the machine voice prompt an internal error?

A: Please try to update the machine's firmware version to the latest one. If the machine still prompts an internal error after updating the firmware, please go to the map interface and send the following two pictures to us to get a solution.



31. Q: What should I do if the water tank cannot add water?

A: The water injection filter is clogged. Please check if there is any foreign matter on the filter. It is usually due to the adhesion of scale. If the filter is clogged due to water quality problems, it is recommended to use a small amount of white vinegar to dissolve it.

Wrong cleaning method: Inject a large amount of cleaning liquid into the water tank for disinfection

## Routine Maintenance-related

1. Q: What would be better with regard to the maintenance schedule for the machine?

A: In case of daily cleaning, for a general home environment, it is recommended to maintain the machine weekly or in a shorter period of time; for a home of 150 sq. m. or larger in size or having a pet, it is recommended to maintain the machine every 3 days or in a shorter period of time.

2. Q: Do I have to replace consumables when I get a message regarding part replacement from Roborock app?

A: Replacement information about the side brush, main brush and filter is concluded based on normal service conditions and is applicable to most of general users. It is recommended to regularly replace consumables to maintain the optical cleaning performance. If the side brush, main brush or filter is not broken and works well, you can select the Reset button from your mobile phone and continue use.

3. Q: Can the side brush, main brush and dust bin be flushed with water?

A: Yes. **After flushing, please thoroughly dry and reinstall them in place, especially for the filter; otherwise, you may have to clean up it.**

4. Q: Can the filter be flushed with water? Why?

A: Yes. The Roborock robotic vacuum cleaner is provided with a washable filter. When the dust collection effect is affected due to seriously dirty filter, flush the filter with tap water but not to use a cleaner or brush. Dry it thoroughly before use.

5. Q: What should I do when the side brush is deformed?

A: It can be recovered by immersing it into hot water at 60-70°C for about 10 seconds.

6. Q: What should I do when the main brush is entangled by hair?

A: Please use the supplied main brush cleaning tool. If it is tightly entangled by some hair or harness, use scissors, without damaging the rubber sheet and brush bundle of the main brush.

7. Q: What should I do when the left/right wheel is entangled by harness?

A: Rotate the wheel gently in reverse direction and slowly pull harness out with hands. Forced pulling may result in higher tightness or breakage.

8. Q: What should I do when the machine works with sudden high noise?

A: Please stop the machine, and: check whether any foreign matter gets stuck on the bottom of the machine; remove the main brush to check whether any foreign matter gets stuck inside the inner wall of the main brush module or at the inlet of the dust pick-up hose; check whether any

foreign matter gets stuck in the main wheel; check whether any foreign matter gets stuck in the side brush; check whether any foreign matter gets stuck in the omni-directional wheel; check whether any foreign matter gets stuck in the black wear pad of the main brush cover; check whether any foreign matter gets stuck in the strip on the main brush cover; noise may also result from blowing of light particles inside the dust bin by air flow; in this case, please empty the dust bin.

9. Q: Can I use wet cloth to wipe off the machine body/charging dock?

A: For foreign matters that cannot be removed by dry cloth, you can power the machine off or disconnect it from the power supply and use wet cloth to clean it. Be sure to use dry cloth to wipe water residue off before charging or use.

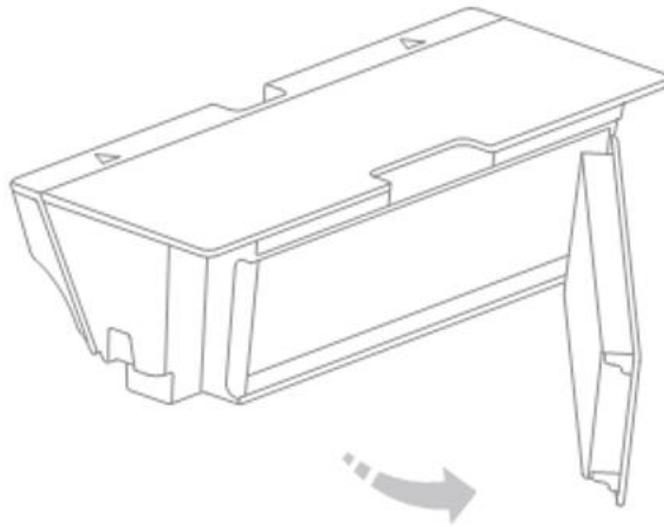
10. Q: What's the frequency of replacement for the side brush and main brush?

A: The frequency of replacement may vary with service condition and home environment. In general, the side brush and main brush may be replaced every 3-6 months and 6-12 months respectively.

11. Q: How to remove the filter for cleaning?

A: Push the buckle in the left of the filter and forcedly rotate to remove it.

The removed filter can be cleaned by using a vacuum cleaner, or flushed with tap water. Dry it thoroughly before use again.



12. Q: How to clean the omni-directional wheel?

A: After flipping the machine over, grasp the wheel body and forcedly pull it up to remove the omni-directional wheel. Then, grasp the omni-direction wheel support while pinching the wheel body to pull it up to separate the support from the wheel body. After cleaning, push it tightly and install in place.

13. Q: What should I do when the main brush is deformed due to entangled harness?

A: After removing harness, allow the machine to work for a few times. Deformed rubber sheet and brush bundle will slowly be restored due to centrifugal force and generally requires no special treatment. Replace it

if necessary.