

Autonomous Driving Floor Scrubber Chancee Series S100-N

user Manual



It is strictly prohibited to use this equipment without reading this manual.

Preface

Sincerely thank you for purchasing the Chancee S100-N autonomous driving floor scrubber (hereinafter referred to as “the product ”).To achieve the best cleaning effect and prolong the service life of the floor scrubber, please read the instructions in this manual carefully before operating and maintaining the floor scrubber, and follow the instructions strictly. If you have any comments and suggestions, please contact us in time. We' re more than happy to provide you with enthusiastic and fast service! Specific operations vary among different versions and models, and this manual is only used as a reference for end users. Our company reserves the right to modify and interpret this manual.

If you encounter any problems in the use,please contact our account manager for answer. For more information, please visit our website:

Cautions

Caution read the instructions before using the machine.

This machine is not intended for use by persons (including children) with reduced physical.

This appliance contains batteries that are non-replaceable.

Machines left unattended shall be secured against unintentional movement.

WARNING Operators shall be adequately instructed on the use of these machines.

WARNING Always ensure that safety support is installed before working beneath hopper.

WARNING Do not inhale exhaust gas fumes. Only use indoors when adequate ventilation is provided, and when a second person has been instructed to look after you.

CAUTION This machine is for indoor use only.

CAUTION This machine shall be stored indoors only.

WARNING Do not use for cleaning purposes on surfaces having a gradient exceeding that marked on the machine.

WARNING Always ensure that warning light is switching on when the hazardous exposed side brushes are moving.

WARNING Do not allow the supply cord to come into contact with the rotating brushes.

目录

1.Instructions for use	4
1.1 Sweeping Restrictions	- 1 -
1.2 Use Requirements	- 1 -
1.3Safety	- 2 -
2.Product Introduction	- 3 -
2.1 Packaging List	- 3 -
2.2 product Dimension	- 3 -
2.3 Component Names	- 4 -
2.4 Product Parameters	- 6 -
3.Product use	- 6 -
3.1 Use precautions	- 6 -
3.2Pre-use preparations	- 7 -
3.3 Quick Start	- 7 -
1.Power on	- 7 -
3.4 Emergency Response	- 7 -
3.5 Charge	- 8 -
3.6 Add Water	- 8 -
4.Inspection and maintenance	- 9 -
4.1 Regular Inspection	- 9 -
4.2 Regular Maintenance	- 10 -
4.3 Inspect Vehicle Braking Function	- 13 -
4.4 After-sale Services	- 14 -
5.Product Warranty	- 14 -
5.1 validity period of warranty services	- 14 -
5.2 Inclusion in the warranty services	- 14 -
5.3 Exclusions from the warranty services	- 14 -

1.Instructions for use

Before using the product, please read the instruction manual carefully and strictly abide by the guidelines.

In this manual, this sign indicates potential danger. Instructions marked with this sign should be strictly observed.



1.1 Sweeping Restrictions

1.1.1.The product shall only be used as a sweeping tool. If it is used for any purpose beyond the functions specified in this instruction manual, Chancee shall not be liable for any damage caused therefrom.

1.1.2.The product can sweep common garbage, but not ropes, ribbons, toxic and harmful substances, or very hot materials.

1.1.3.Due to the restrictions imposed by the product,s dimensions, it cannot sweep garbage over a certain volume

1.1.4.If the product is not moving, lift the main brush and the side brush to avoid deformation.

1.2 Use Requirements

1.2.1.The product shall only be used by authorized and specially trained staff, who shall carry out all maintenance, overhauls, and repairs.

1.2.2.please strictly follow the inspection and maintenance requirements specified in this instruction manual.

1.2.3.If the motor, drive, or main brush and side brush fail to work properly, the user should first check whether they have become wrapped with ropes or ribbons, and then check the safety box to see if the fuse has blown. If necessary, please contact our company.

1.2.4.The product should be charged in a dry and stable environment with minimum dampness and vibration.

1.2.5.Do not charge in direct sunshine in summer.

1.2.6.If the power supply is automatically cut of due to low power, and the power button is not turned of, be sure to charge the vehicle within 10 days; otherwise, the battery may fail to recharge.

1.2.7.When stored with the power button turned of, the vehicle should be charged at least every month; failure to do so may affect the battery life or even lead to a failure to recharge.

1.2.8.Before use, check the electric power of the vehicle. If the electric power is less than 10%, if possible, fully charge the vehicle before use to avoid an automatic shutdown due to low battery power.

1.2.9.If the vehicle is not used for more than one month, charge the battery to 50%-80% of full strength, turn of the power button, and then store the vehicle in a room with an ambient temperature of 10℃~35℃ .

1.2.10.To avoid the product being used by untrained personnel, do not leave the key in the product protection cover.

1.2.11.Please set a user password to avoid the product being used by untrained personnel.

1.2.12.Do not sweep on rainy days or sweep waterlogged pavement after rainy days, as water entering the dust control filter will affect the dust control.

1.2.13.To prevent water from entering the product chassis, do not use the product on waterlogged pavement.

1.2.14.When replacing the main brush, please pay attention to the direction to avoid the adverse effects of installing the main brush in the reverse direction.

1.2.15.Before turning it on, inspect the product to ensure that it can work under normal conditions.

1.2.16. Please wipe the surface of the product's Lidar/ ultrasonic radar/camera regularly to keep it clean.

1.2.17.Do not use the product in extremely hot (above 40 ℃) or extremely cold (below - 15 ℃) environments.

1.2.18.Turn on the product in the operation areas. Do not move the product to other areas for use.

1.3Safety

1.3.1.To avoid accidents, it is strictly forbidden for non-staff personnel to open the front cover of the product or to dismantle the main shell.

1.3.2.The power supply must be turned of when the product is being repaired and maintained.

1.3.3. Do not operate the product in rain, snow, hail, or heavy haze to avoid affecting product safety.

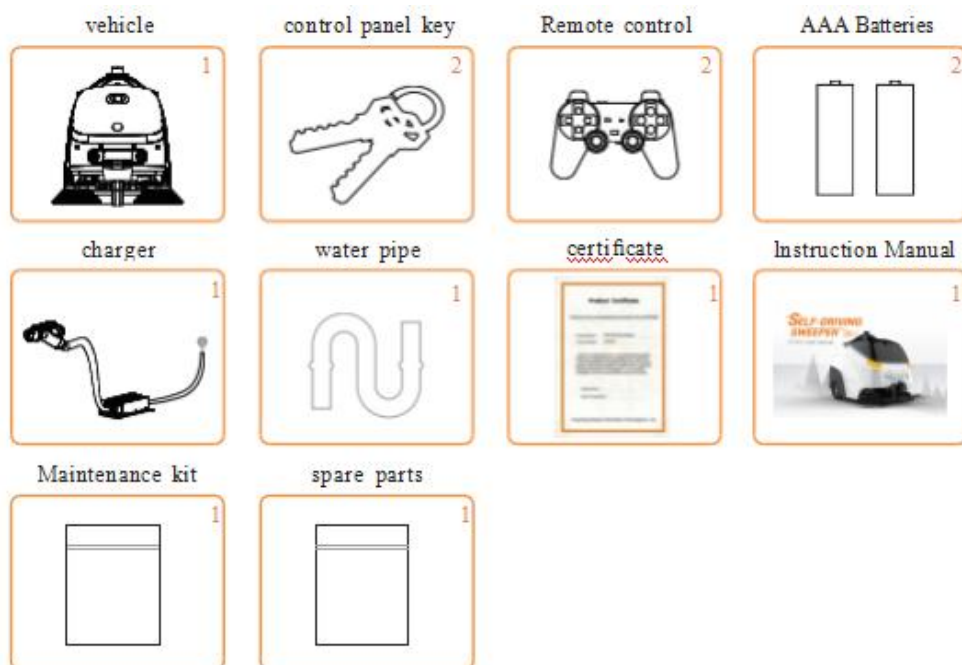
1.3.4. The vehicle should be charged with the original charger. Third-party chargers may cause personal and property hazards and are strictly prohibited.

1.3.5. For safety, ensure that the vehicle is charged in waterproof conditions.

1.3.6. It is strictly forbidden for any third-party other than Chancee to disassemble the vehicle, unless they have been authorized by Chancee. The user shall be responsible for any consequences arising from unauthorized disassembly.

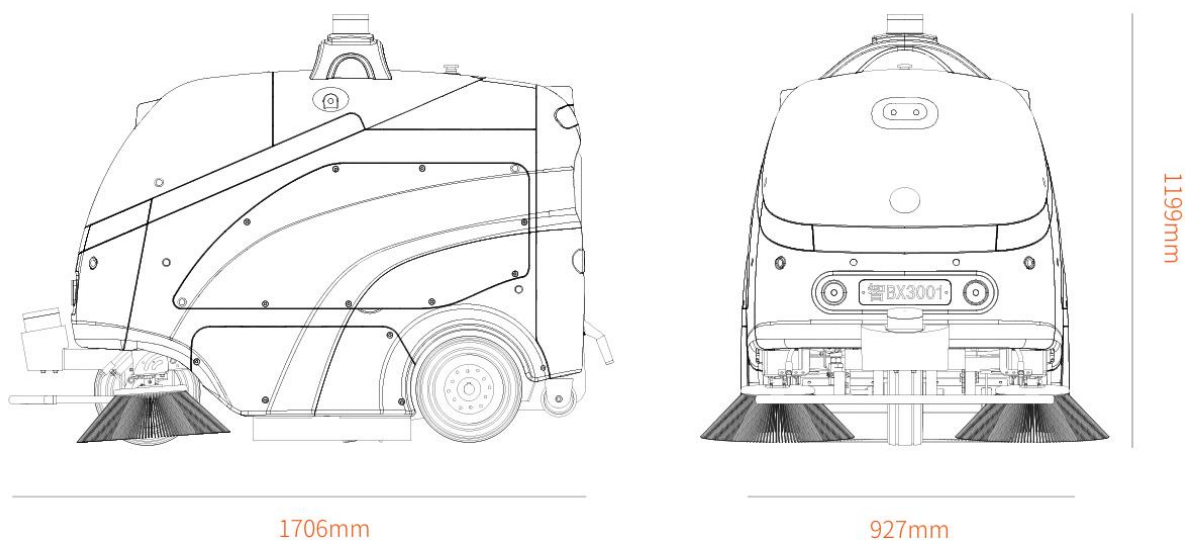
2.Product Introduction

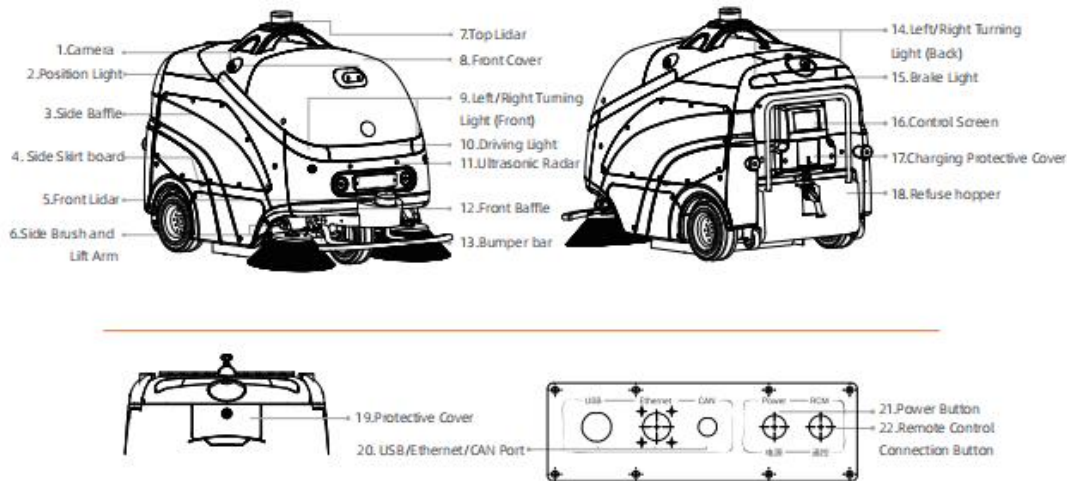
2.1 Packaging List



2.2 product Dimension

Length*Width*Height: 1706 mm* 927 mm * 1199 mm (excluding protruding part of the side brushes)* width * Height: 1706 mm*927 mm*1199 mm (excluding protruding part of the side brushes)





2.3 Component Names

If the [Emergency stop] button on the matching vehicle is pressed, the remote control will not be able to control the horizontal and vertical directions of the vehicle; that is, it will not be able to make the vehicle advance, retreat, or turn.

- If the remote control is not used for a long time (2 minutes), the remote control will enter sleep mode. The [start] button on the remote control can be used to waken the vehicle. If the remote control is not used for more than 3 minutes, it must be woken up and re-matched before it can be used to control the vehicle.
- After the use of the remote controller, set the power switch to [OFF], and turn off the RCM button on the vehicle.

If the power switch of the remote control is turned to [OFF], the remote control will be automatically disconnected from the vehicle after 1 minute. please turn off the sweeping control motors before disconnecting the remote control.

- It takes time to turn on the sweeper motor. Do not press the sweep-related buttons too frequently.
- Do not push the remote control pole too hard.
- When the remote control [POWER] LED flickers, it is indicating that the remote control is in low power mode. please replace the battery promptly.
- When remotely controlling a vehicle, keep a distance less than 3m between the remote control and the vehicle; otherwise, the remote may not always be able to control the vehicle.

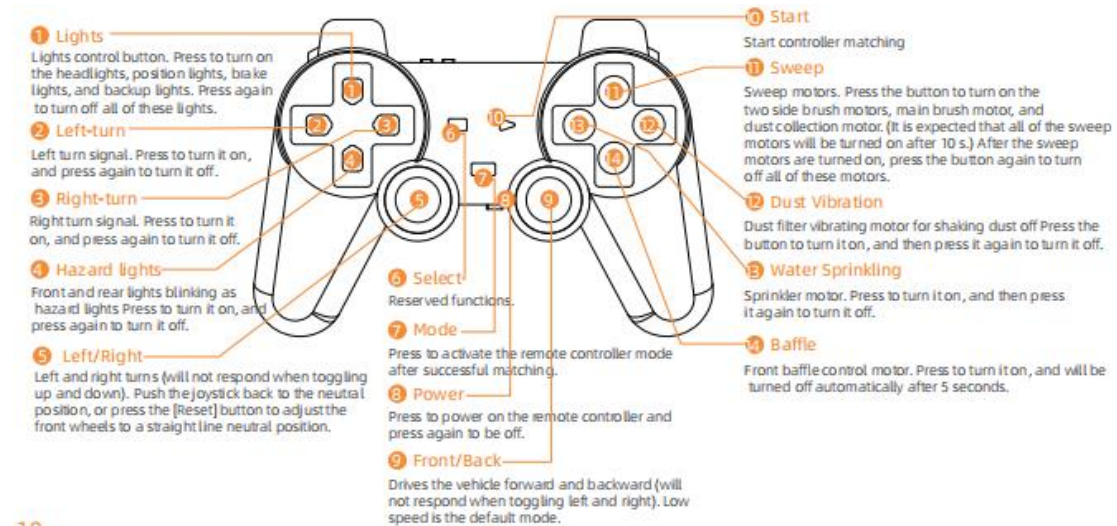
Remote control Matching Process

1. Press the power button on the vehicle control panel.
2. Turn the power switch at the bottom of the remote controller to ON (remote control [POWER] LED light turns red.)
3. Press the remote control button on the vehicle control panel. After the LED light of the remote control button flickers, press the remote controller [ON] button for about 2 seconds. After hearing two prompts, release the button and the remote control will be matched successfully with the product.

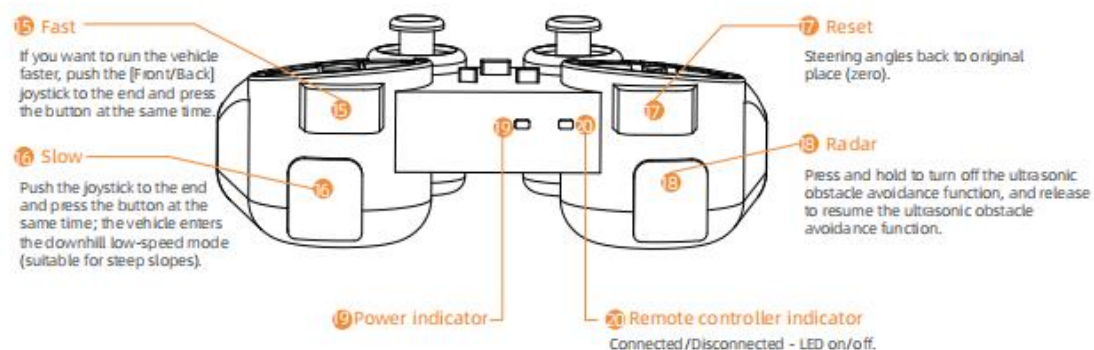
4. Once successfully matched, press the [Mode] button of the remote controller. When the two red lights of the remote controller [LED] are on at the same time, the remote control is ready.

Component Name Button Functions

Button Function

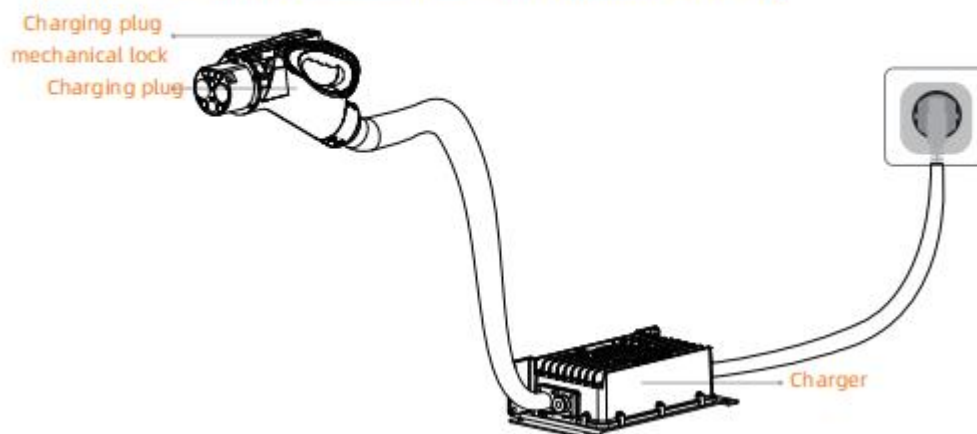


10



Charger

- Connect one end of the charger to a standard AC socket.
- The charging plug should be connected to the product charging socket.



2.4 Product Parameters

Rated Power	1000W	GVW	395Kg	Sweeping Width	1m
Operating Voltage	24V	Max speed	5Km/h	Hopper Volume Capacity	60L
Charging Time	5h	Max slope	-15°~10°	Main Brush Dimension	D300*W590mm
Runtime	5h-8h	Working noise	73dB	Sweeping Efficiency Peak	Max 5000m²/h
Battery Capacity	200Ah	Vehicle wheel	Solid rubber tire		Overall3000m²/h
Battery Type	Ternary lithium battery			Water Tank Capacity	60L
Charging Voltage	220V				
Battery Life	For 3years or 20,000 kilometers (whichever comes first), the capacity attenuation should not exceed 20%.				
*Runtime varies depending on usage					

3.Product use

3.1 Use precautions

scenario constraints	Specific requirements
weather factors	suitable weather,sunny, cloudy, overcast, light rain, light snow,unsuitable, weather, medium rain, heavy rain, medium snow, heavy snow, sandstorm, heavy fog
Operation temperature	-15°C~40°C
Light factors	During the day or at night with illumination (illuminate > 50 Lux)
Communication requirements	with 4G and GPS coverage
Driving environment	Driving environment requirements 1.Road type: outdoor environment, specifically non-public roads or municipal roads 2.Pavement requirements: non-waterlogged, Lat, hardened pavements 3.Slope capacity 15°-10°
Parking space	Parking space structure : parking space and adjacent ground must be l lat. If a car shed is used , metal materials should be avoided as far as possible. Parking space size: support vertical parking, parking space size ≥2.3 m (L) x1.8 m (W)

3.2 Pre-use preparations

Before the product is formally used, a series of preparation and verification processes need to be carried out.

1. After the product unpacking and basic examination, please prepare the following information:

- a. Areas you need to sweep.
- b. Specific location of function areas. Function areas include vehicle parking positions, charging positions, garbage dumping positions, and water injection positions.

2. Our staff will provide you with daily maintenance training for the product and inform you of the product's characteristics, precautions, and daily maintenance schedule.

3. Our staff will assist you to complete the first field adaptation according to the prepared information.

4. When the adaptation is finished successfully, field map will be loaded into the vehicle. Congratulations! You have officially embarked on the journey of autonomous driving.

3.3 Quick Start

For the account and access to the mobile application, please contact the sales.

1. Power on

Press the power button. If the indicator is on, the product has been turned on.

2. Set various sweeping tasks on the smart phone.

3. Select the sweeping tasks on the homepage. You can select a single task or a task combo. Click "submit the task" to start autonomous sweeping.

4. After the task is finished, the product automatically returns to the preset location.

The starting point of a task has the following requirements: should be within the operation areas.

If the above requirements are met, the vehicle can start the autonomous driving function; otherwise, the vehicle needs to be remotely driven to an appropriate area.

3.4 Emergency Response

If uncontrollable or unexpected situations occur, please immediately press the emergency stop button on the product. The product will immediately brake with maximum braking power to achieve an emergency stop.

If uncontrollable or unexpected situations occur, please immediately press the emergency stop button on the product. The product will immediately brake with maximum braking power to achieve an emergency stop.

After the emergency stop button is pressed, the product will be locked automatically. Only by rotating the button back to its initial state can you continue to use this product.

Make the following choices based on site conditions.

- 1.If no physical or financial losses have occurred at the scene, and the vehicle is normal, release the emergency stop button to allow the product to continue to executing the commands on the control panel.
- 2.If there is a need for on-site communication, please call our customer service number and ask our staff for the necessary services. At this time, you can engage the remote control to move the product to a safe location.

3.5 Charge

Please charge the product with the auxiliary charging equipment. The power requirements are as follows: 220 V 10 A three-plug standard mains socket.

The charging steps are as follows:

- 1.push the switch vertically upwards at the back cover and open the product charging port cover outwards.
- 2.Gently press the switch at the lower end of the protective cover, and the protective cover will open automatically.
- 3.Fully insert the charging plug into the charging socket until it clicks. when the mechanical lock is engaged, the indicator light on the charger lashes, indicating that it is in the charging state.
4. If the indicator light on the charger stays green, it indicates that the product has been fully charged. users need to press the button of the charger,s mechanical lock, pull out the charger, and close the protective cover and the cover plate of the charging socket.

Charging should be carried out in a dry, stable environment with little moisture or vibration.

- We recommend first plugging in the charging plug, and then the AC plug.
- When inserting the charging plug, please make sure that it is inserted in the right place, and that the mechanical lock of the charging plug is engaged.Otherwise, it may fail to charge due to poor contact, and may even damage the battery and charger.
- Charging time will be extended at low temperatures (below 0° C).
- The ambient temperature for using the self-driving sweepers should not exceed -15 ° C ~ 40 ° C. Temperatures outside this range may affect the battery life.
- Please avoid direct sunlight when charging during the summer.

The indicator light on the charger has three states:

1. The red and green lights flicker alternately when the charger is idle.
2. The red light lashes when charging.
3. The green light stays on when the battery is fully charged.

3.6 Add Water

- 1.Once the vehicle has been delivered, a faucet is needed for water filling.
2. After the sprinkling operation is completed, any water remaining in the water tank needs to be drained.

Steps to add water

1. Insert one end of the water injection pipe provided with the vehicle into the water filling nozzle at the bottom of the engine, and connect the other end to a faucet, as shown on the right.
2. The product water tank is provided with an overflow pipeline. when the water tank is full, excess water will low out from the overflow pipeline. when the water tank is full, close the water valve.
3. Unplug and put away the water hose. There is a check valve at the water inlet, and there is no need to manually close the water inlet.

The drainage methods are as follows:

1. Manually open the discharge valve at the bottom of the front end of the product to drain water.
2. when there is no water lowing out of the outlet, it means the water tank has been emptied. Close the discharge valve to complete the drainage operation.

4. Inspection and maintenance

4.1 Regular Inspection

Inspection items

wide Angle/ HD camera

Lidar

ultrasonic Radar

Brake

Emergency stop button

Inspection methods

clean the wide-angle/HD camera lens with a dry,

clean non-woven fabric. check if the camera is loose, skewed, or retracted.

clean the Lidar with a dry, clean nonwoven fabric.

Touch the top of the Lidar with your hand in the left/ right/front and rear directions to see if there is any obvious shaking of the radar.

Caution:

Do not be violent; do not touch the central shield of the Lidar.

Clean the ultrasonic radar with a dry, clean non-woven fabric

Check if the radar is loose or skewed and check if the radar rubber sleeve is wrinkled or retracted.

Check the function of the vehicle as follows, with the power cut of on a lat road and the vehicle brakes in situ, try pushing the vehicle. The vehicle should not move and the wheel should not rotate.

Check if the emergency stop button is shaking. Check if the emergency stop button can be pressed and restored normally.

Check the diameter of the main brush.
Check the sweeping effect of the main brush.

Inspection cycle

1 week
1 week
1 week
1 month
1 month

Maintenance methods

If installation is abnormal, please contact the after-sales.
If installation is abnormal, please contact the after-sales.
If installation is abnormal, please contact the after-sales.
If installation is abnormal, please contact the after-sales.
If installation is abnormal, please contact the after-sales.

4.2 Regular Maintenance

Maintenance and Replacement of Main Brush

Introduction to the structure of the main brush

Use a Phillips screwdriver to remove and repair the set screws of the left and right
Side skirt boards of the product. Remove the side skirt board to see the following parts:

Methods to Replace Main Brush

Remove the skirt board on the left side of the vehicle

Remove the lift arm bolt on the left side of the main brush, and then take off the lift arm
on the left side of the main brush.

Remove the bolts on the left seal board and the dust shield of main brush, and then take
off the seal board and the dust shield.

Pull out the main brush.

Replace with a new main brush.

Re-install the seal board and dust shield.

Re-install the lift arm on the left side.

Re-install the skirt board on the left side of the vehicle.

Recommended change value for main brush: diameter $\leq 235\text{mm}$

Pay attention to mounting directing of the main brush.

Inspection items

Side Brush

Main Brush Conveyor Belt

Inspection methods

Check the diameter of side brush.

Check the sweeping effect of the side brush.

Inspection cycle

2 Weeks

2 Weeks

Maintenance methods

When the diameters of side brush is $\leq 300\text{mm}$, replace the side brush. Adjust the side brush tilt angle and mounting angle.

If the conveyor belt is loose, it needs to be tightened again, if the conveyor belt is broken, it needs to be replaced.

Side brush replacement

when the side brush is used for more than 500 hours or when the sweeping effect is not good, the user needs to replace the side brush.

Procedures for replacement

1. In the sweeping state, press the power button or emergency stop button to keep the side brush still.
2. As shown in the figure, use a Phillips screwdriver to remove the set screws on the left and right skirt boards of the product, and then take off the side skirt board of the vehicle.
3. Use a wrench to loosen the set screw of the side brush disc, and then remove the brush disc from the motor shaft.
4. Remove the four bolts on the side brush holder, so that the side brush can be separated from the side brush; replace the side brush and re-screw the brush holder.
5. Re-install the brush disc and tighten the screw.
6. Check bolt tightness, turn on the brush to check the sweeping effect.
7. Re-install the side skirt board.

Recommended value for brush replacement: diameter $\leq 300\text{ mm}$

The diameter of the side brush in the suspended state.

Side brush adjustment. _____.

After the side brush has been used for a period of time, or when the sweeping deteriorates, the user needs to adjust the side brush.

Steps for adjustment.

1. Lower the side brush to its lowest position.
2. Use a Phillips screwdriver to remove the set screws on the left and right skirt boards of the product, and then take off the side skirt boards of the vehicle.
3. Use a wrench to loosen the lock-nut for a certain distance, and then slowly pull the bolt down. At this time, the side brush will fall down. Check the contact area between the brush and the ground to ensure that the bristles are in close contact with the ground.
4. Keep the bolt still and tighten the lock-nuts.

Adjust the tilt angle of side brushes, if they cannot touch the ground effectively. Follow the procedures as below:

1. Loosen the set screw at the cantilever joint of the side brush and adjust the tilt angle of the side brush to increase or decrease the touch area of the side brush.
2. After adjusting the angle of the side brush, tighten the screw at the joint of the cantilever.
3. Re-install the side skirt board and turn on the brush to check the sweeping effect.

Methods to replace main brush conveyor belt

1. Remove the right skirt board of the vehicle.
2. Loosen the compression bolts of the cantilever of the conveyor belt, tighten the pulley so that the tightening pulley no longer presses the conveyor belt.
3. Remove the conveyor belt from the belt pulley.
4. Replace with a new conveyor belt.
5. Re-tighten the tightening pulley and tighten the compression bolts of the tightening pulley.
6. Re-install the right side skirt board of the vehicle.

Check the tension between the tightening pulley and conveyor belt on the right side of the main brush every 40 hours. If the conveyor belt is slack, replace the main brush conveyor belt, and check the main brush pulsating pulley at the same time. Replace the tightening pulley when it becomes worn.

Inspection items

Dust Filter
Dust shield

Inspection methods

Remove the dust filter element and the dustbin scraper to check whether they are damaged.
Visually check if the dust shield is damaged.

Inspection cycle

2 months
2 weeks

Maintenance methods

If the filter element and the dustbin scraper are damaged, replace them; if the filter element is not damaged, clean the filter and filter element. To ensure efficient sweeping, it is necessary to regularly replace the filter element.
If the dust shield is damaged, it needs to be replaced.

Cleaning and replacement of the filter element

Methods to clean the filter element of the dust filter

Methods to clean the filter element of the dust filter

- 1.1. clean and maintain the filter once every two months. Take out the filter and clean it thoroughly from the inside of the filter element, and remove the accumulated dust.
2. check if the dust vibration scraper is worn, whether the filter element is damaged or scratched, and replace the filter if necessary.

Methods to replace the filter element

1. Remove the repair board on the right side of the vehicle.
2. Remove the six bolts on the outer ring of the right-side board of the dust filter. The vibration motor on the side board does not need to be disassembled.
3. Pull out the right-side board of the dust filter.

4. Remove the bolts that secure the filter element on the right-side board, and then take off the filter element.
5. Replace with a new filter element.
6. Re-install the right-side board.
7. Re-install the repair board on the right side of the vehicle.

Methods to replace dust shield

1. Loosen the set bolts and take off the worn or damaged dust shield.
2. Install a new dust shield and bolt it in the same position. The side and rear dust shields should be 1-2mm from the ground.

Inspection items

Dustbin Seal Strip
Sprinkler System Piping

Inspection methods

Check if the seal strip is detached or damaged.
Check if the sprinkler system is leaking water at the pipe connection.

Inspection cycle

Each time garbage is dumped.
Each time water is filled.

Maintenance methods

If the seal strip falls off, re-install it; if the seal strip is damaged, replace it.
Wrap the threaded coupling with Teflon tape.

4.3 Inspect Vehicle Braking Function

To ensure safety when checking the braking function of a vehicle, make sure that the vehicle is powered off.

Inspection items

Can the vehicle be braked in situ?

After turning off the motor brake, the vehicle has no in-situ braking function. (not necessary.)

Illustration

When the vehicle is pushed in place, the vehicle does not move. Pull the motor brake handle up, and push the vehicle in place, the vehicle moves. Pull the motor brake handle back to its original position.

4.4 After-sale Services

Software services

If the environment in which the product is used changes, especially if the road environment changes so that the autonomous driving function of the product is affected, please contact our customer service staff.

Hardware services

If the product fails, please contact our customer service. Our staff will contact you to inform you of the follow-up process and related standards.

Other services

If you need to purchase consumables or have other needs, please contact your account manager. we will be happy to help you.

5.Product Warranty

5.1 validity period of warranty services

The warranty services are valid for one year from the date of your purchase of the self-driving sweeper (subject to the date of purchase invoice).

Note: The main brush, side brush, filter element, dustbin scraper, belt, dust-proof rubber plate, dustpan seal strip, and water spout are all consumable parts, and they are not included in the warranty services.

5.2 Inclusion in the warranty services

vehicle use, repair, and maintenance in accordance with the instruction manual.

Quality defects or damages due to factors such as product design, manufacturing, assembly, and defects in raw materials.

5.3 Exclusions from the warranty services

5.3.1 The following conditions are excluded from the warranty services.

1. Except for the maintenance items listed in the instruction manual, damages caused by repairs made by users or caused by repair or maintenance in repair shops other than the after-sales of our company and our authorized service station.
2. Damages caused by installing parts that have not been approved by our company or having modification that have not been approved by our company.
3. Damages caused by failure to perform regular maintenance as specification in the instruction manual.

4. Damages caused by inappropriate operation in violation of the instruction manual or use beyond the specification capacity.
5. Damages caused by force majeure.

5.3.2 The following conditions will not be considered damages and are excluded from the warranty services.

Phenomena caused by wear and tear or long-term use.

Warranty Card			
Name		Tell	
Postal address		Bill No.	
Purchase time		Number	
Product model		Date	
Replace accessories			
Fault description			

