GYOGE



CAUTION: Read The Instruction Before Using The Machine

For Professional Users & Industry

1



INDEX

- 2.1 Preface 4
- 2.2 Statement of the instruction manual 5
- 3.1 Attachment 5
- 3.2 Disposal of Waste Vehicles 6
- 3.3 Symbols 6 in the operating manual
- 3.4 Symbols 7 on the vehicle
- 4.1 General safety instructions 8
- 4.2 Uninstallation precautions 11
- 4.3. Safety instructions for operation 11
- 4.4. Safety instructions for driving 12
- 4.5. Safety instructions for batteries 12
- 4.6. Safety instructions for vehicle transportation 13
- 4.7. Safety instructions for maintenance and upkeep 14
- 5.1. Equipment appearance 14
- 5.2. Interface/Power Switch 15
- 5.3. Garbage Bin 15
- 5.4. Steering wheel console 16
- 5.5. Pedal 16
- 6.1 Preparation/safety inspection before startup 17
- 6.2 Adding water 17
- 7.1 Driving mode 17
- 7.2 Sweeping mode 18
- 7.3. Dumping garbage 18
- 7.4. Shutting down equipment 18
- 8.1. Checking/Adjusting Additional Equipment 19
- 9.1. Dragging Vehicles 20
- 10. Storage 20
- 11.1. General Instructions 20
- 11.2 Maintenance Cycle 20



- 11.3 Maintenance Operations 21
- 11.4. Maintenance Cycle Table 21
- 11.5. Replacement of Consumables 22
- 12. Troubleshooting 25
- 13. Insurance Instructions 28
- 14. Circuit diagram 29
- 15.1.Tool list 30
- 15.2. Selection of tools 30
- 15.3. Selection of commonly used items -1 31
- 15.4. Common Item Options -2 31
- 15.5. Regular Hardware 32
- 16. General problem troubleshooting 32
- 16.1. General troubleshooting main brush not working -133
- 16.2. General troubleshooting main brush not working -233
- 16.3. General troubleshooting motor replacement 34
- 16.4. General problem investigation vehicle not cleaned thoroughly 35
- 16.5. General troubleshooting synchronous disc replacement 37
- 16.6. General troubleshooting replacing the brush motor 38
- 16.7. General troubleshooting Introduction to electrical box structure 38
- 16.8. General troubleshooting steps for disassembling and installing the front wheel assembly
- 16.9. General troubleshooting abnormal charging detection and maintenance--41
- 16.10. General troubleshooting water pump inspection and maintenance--41
- 16.11. General troubleshooting Fan inspection and maintenance --43
- 16.12. General troubleshooting brake oil discharge maintenance --44
- 16.13. General troubleshooting common driver issues 46
- 17. After sales process ----47
- 18. Revision History -----49



Dear user

Welcome to use our company's series of floor sweepers. Note: This manual is only applicable to sweepers.

To help you become familiar with your car, we kindly ask you to carefully read this manual before driving your new car. You can receive important tips about vacuum cleaners, which can enable you to fully utilize the technical features and enjoy an endless cleaning experience. In addition, the User Manual also specifies the establishment and termination of product quality assurance responsibilities, after-sales service rights and obligations between our company and users. Please read the User Manual carefully before using our company's products. At the same time, you will also receive information about maintenance, which is crucial for the driving safety and traffic safety of sweepers, as well as for vehicle maintenance.

All information in this manual is up-to-date until the book is delivered for printing. However, as our company has the authority to improve the functionality and structure of our products to meet the diverse needs of our users. Therefore, our company reserves the right to make changes without notifying the customer.

Sincerely wish you a pleasant driving experience!

2.2 Statement of instruction manual

Important Note:

- Our company is fully responsible for revising and explaining the user manual, and reserves the right to notify the product of any improvements made after printing this manual. Some images in this manual are for reference only, and if the images do not match the actual product, the actual product shall prevail.
- ◆ Please place this manual in your car so that you can easily find it when you need it again. This user manual is an important component of the vehicle's accompanying documents.
- ◆ If any malfunctions are found in our company's products during use, For Professional Users & Industry

4



please refer to the repair manual and contact our company. Do not disassemble the vehicle without authorization. If you operate it without authorization, please bear the unforeseeable consequences caused.

If the vehicle needs to replace parts, it must use qualified accessories produced by our company. It is not allowed to use components outside of our company. Otherwise, they will not be covered by the quality warranty, and any unforeseeable consequences will be borne by

No.	Name	Unit	Q'ty
1	Machine	Set	1
2	Charger	Set	1
3	Kits	Package	1
4	Bracket	Pc	1
5	Slope board	Pc	1
6	Manual	Book	1
7	Certificate	Pc	1

yourself

- The machine model and body number are written on the body label, which is very important when you purchase accessories.
- ◆ If you encounter any unclear areas while reading this manual, our company will provide you with more detailed explanations, and we welcome valuable feedback from users.

3.1、Attachment

3.2. Disposal of waste vehicles



AWarning:

Waste vehicles contain valuable materials and should be recycled and utilized reasonably. We suggest that you cooperate with a waste management company to dispose of waste vehicles.

3.3. Symbols in the operating manual



Danger!

These signs refer to situations that pose a danger to the operator (even the risk of death).





Electric hazard warning!

This symbol refers to the potential danger that may cause harm to personnel.



Carefull

This symbol refers to caution or important related notes or useful functions. Pay special attention to the places with these markers in the paragraph.



Note:

Before using this machine, it is necessary to read this user manual.

3.4. Symbols on vehicles



Warning:

This symbol reminds users that this operation carries danger



This symbol reminds users that this operation is an important operation of this product!

Unauthorized disassembly of the machine for repair or debugging is strictly prohibited



Do not replace the power cord without authorization

Choose a three core cable with a grounding wire for AC power supply and install the grounding wire correctly



Do not place the charger in a rainy area

The DC plug and socket should be tightly connected. If there is any damage or looseness, please replace it immediately

If there is any abnormal sound or odor during normal operation of the charger, please unplug the power plug

If maintenance is needed, please contact our company in a timely manner, and we will solve it for you as soon as possible



It is prohibited to lengthen or replace the output cable



Do not block the air inlet and outlet of the charger

Please disconnect the power cord and charging plug when using a mobile charger



The battery voltage must match the nominal voltage of the charger (48V charger) only allows charging of 48V batteries)



To avoid damaging the charging cable, please do not pull, twist, or shake the cable







Forward placement

Prevent rain exposure

Do not disassemble the

machine

4.1 General safety instructions



Danger!

Before any maintenance or repair, the power must be turned off and the key on the main power switch must be removed.

The machine must be used by fixed personnel who have received professional training. Children, disabled individuals, and non professionals are strictly prohibited from using this machine.

Keep the battery away from sparks, flames, and fireworks.

Do not wear accessories when using this machine.

Do not use in hazardous, flammable, or explosive gas, liquid, or water vapor areas.

When charging the battery, please charge it in a ventilated area and keep the lid open and away from open flames.

- * This machine is only used as a cleaning tool. If it is used for other purposes beyond the instructions in this manual, we will not assume any responsibility for this.
- X This machine can clean general garbage. It is strictly prohibited to clean ropes, belts, high-temperature debris, accumulated water, flammable or toxic substances to avoid entanglement, burning the main and side brushes, and preventing them from working properly.
- * This machine can only be used by professionals and is strictly prohibited for minors and non professionals to drive.

Driving under the influence of alcohol is strictly prohibited, and speeding is strictly prohibited.

There is a risk of overturning when driving on steep slopes and turning at high speeds.

When the machine stops working, unrelated personnel should be kept away from the machine.

When the machine is working, the working speed should be controlled within 5km/h, and the dust should be vibrated every 10-15 minutes to achieve the best cleaning effect.



- * Ensure that the battery is charged in a ventilated area. If a low voltage alarm occurs after the machine stops working or during operation, the battery should be charged in a timely manner to extend its service life.
- * After completing the work, the key should be promptly removed to prevent unauthorized personnel from using it.
- Model in the second of the second of



Please carefully read the maintenance and repair instructions before performing any maintenance and repair operations.

Please keep loose clothing, hair, fingers, and any other parts of the body away from the machine's air vents and any moving parts.

Please do not smoke while charging the battery.

When connecting the battery charger to the main line, make sure that the voltage and frequency are consistent with those on the nameplate.

If the wires of the battery charger are damaged, please do not charge the battery. If the machine is damaged or dropped into water, please contact our after-sales service center.

- Mo not pull the wires of the battery charger onto the machine, nor use the charger
 wires as handles. Please be careful not to pinch the wires of the battery charger
 when closing the door, and be careful not to scratch the wires in sharp places. Do
 not use battery charger wires to operate the machine.
- X Keep the battery charger wires away from hot places.

To reduce the risk of fire, electric shock, or personal injury, do not leave the machine while the plug is still on the socket.

To avoid electric shock, do not place the machine outdoors and store it indoors.

 \times Do not use the machine as a toy, and be especially careful not to let children get close.

Follow the instruction manual to operate the machine. Only the accessories provided by our company can be used.

When the machine comes to a stop, remember to remove the key.

Do not drive the machine on roads that exceed the specified slope.

Monot directly clean the machine with flowing water to avoid causing pressure, and do not use corrosive cleaning agents to clean the machine.

Do not use this machine in very dirty areas.

* Carefully follow the following regulations to avoid injury to personnel or children and damage to the machine.

Do not use the machine as a means of transportation.

When the machine is not moving forward, do not let the brush continue to rotate to



avoid ground damage and brush wear.

In case of a fire, please remember to use a powder fire extinguisher instead of using water to extinguish the fire.

X Do not collide with shelves that pose a risk of falling objects.

Adjust the driving speed of the machine according to the adhesion of the ground garbage.

 \times Do not change the safety protection device of the machine; Follow the maintenance instructions to maintain the car.

Do not move or modify the nameplate on the machine.

When a machine malfunctions during operation, it is important to ensure that the malfunction is not caused by a lack of scheduled maintenance. Otherwise, seek assistance from our company's maintenance service center.

If some parts need to be replaced, you can purchase spare parts from our after-sales service department.

** To ensure proper operation and safety conditions of the machine, professionals or service centers must work in accordance with the relevant maintenance chapters of this manual

When the machine needs to be dismantled and scrapped, someone should also be present to pay attention. Because certain harmful substances (such as waste batteries, waste oil, plastics), although meeting standards, should also be sent to specific centers for processing.

4.2 Uninstallation precautions

- 1. Open the outer packaging film;
- The front and rear wheels of the fixed on pallets with iron sheets;
- 3. Remove the iron sheet:
- 4. Unload the machine along the v
- 5. Keep this iron tray for future ha

4.3 Safety instructions for operation



Note:

The sweeper must be operated by a fixed operator on a relatively flat surface such as cement, asphalt, and ceramic tiles to clean and sweep dust or light garbage



During the work process, it is decided whether to temporarily activate the vibration device based on the amount of garbage being cleaned on the ground.

When the filter is blocked or full, the machine is unable to collect garbage.

After each work and filling, the garbage bin must be emptied







After every 15 minutes of work, the machine needs to be shut down to vibrate the dust for 1 minute, and at the same time, the garbage in the trash can needs to be emptied.

4.4. Safety instructions for driving



When the machine stops working, the main and side brushes must be lifted to prevent deformation of the main and side brushes.



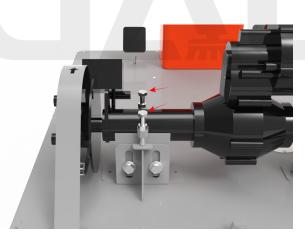
When the machine is shut down or malfunctioning, it is necessary to push/drag the machine to ensure that the speed does not exceed 5km/h, and remove one walking motor wire

▲Warning!

The tightness of the rear axle walking chain must be checked regularly, and the screws must be adjusted immediately when the up and down amplitude of the chain is greater than 5mm.

"Open the water tank to view the screws on both sides of the rear axle used to adjust the chain tension."

Adjust the screws in the picture according to the amplitude of the chain, and the amplitude of the chain should not exceed 5mm. Our company is not responsible for any vehicle malfunctions caused by chain issues.



4.5. Safety instructions for batteries

- 1. It is necessary to avoid the battery being in a low voltage state and charge it as soon as possible.
- 2. This battery is a maintenance free lead-acid battery and does not require the addition of electrolyte.

To avoid electric leakage, please keep the battery dry and clean, especially removing pollutants such as metal dust.

4. It is prohibited to place metal parts (such as tools) on the battery to prevent it from being short circuited and burned out;



- 5. When recycling batteries, please follow local regulatory requirements;
- 6. It is prohibited to use open flames when handling batteries;
- 7. The charging room should have good ventilation;
- 8. Do not connect or remove the battery when the key switch is in the on position;

Before disassembling the battery, first disconnect the negative (-) battery wire, and then disconnect the positive (+) battery wire. When rewiring, be sure to pay attention to the polarity of the battery, as incorrect connections can damage electrical components;

10. Avoid direct contact between the positive and negative electrodes, as it can cause high current short circuits, generate high heat, and even have the possibility of catching fire.

4.6 Safety instructions for vehicle transportation

The entire machine is packaged and fixed on a specially designed pallet, and can be transported by a forklift. This machine can only be placed on a single layer.

Whole machine size: Length: 2239mmWidth: 2060mmHeight: 2128mm

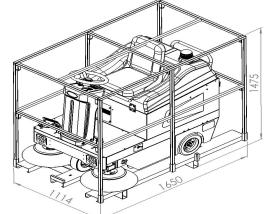
Package size: L: 2239mm W: 2060mmH: 2286mm

4.7. Safety instructions for maintenance and upkeep

All necessary operations, maintenance, and repair procedures must be completed by professionals. Please choose our company's original accessories. Please contact our company's after-sales service center to purchase accessories or for repairs. Please provide detailed information on the machine model and body number.

By combining daily and weekly maintenance, problems with the sweeper can be detected in a timely manner, keeping it in good working condition and ensuring work efficiency.

Moreover, paying attention to maintenance and upkeep not only ensures the efficiency of the sweeper, but also greatly benefits its service life. You should cultivate this good habit



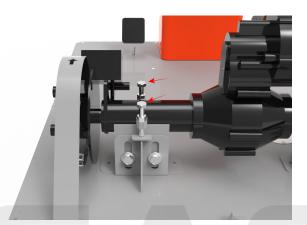


5.1, Equipment appearance Warning!

The tightness of the rear axle walking chain must be checked regularly, and the screws must be adjusted immediately when the up and down amplitude of the chain is greater than 5mm.

"Open the water tank to view the screws on both sides of the rear axle used to adjust the chain tension."

Adjust the screws in the picture according to the amplitude of the chain, and the amplitude of the chain should not exceed 5mm. Our company is not responsible for any vehicle malfunctions caused by chain issues.



4.5. Safety instructions for batteries

- 1. It is necessary to avoid the battery being in a low voltage state and charge it as soon as possible.
- 2. This battery is a maintenance free lead-acid battery and does not require the addition of electrolyte.

To avoid electric leakage, please keep the battery dry and clean, especially removing pollutants such as metal dust.

- 4. It is prohibited to place metal parts (such as tools) on the battery to prevent it from being short circuited and burned out;
- 5. When recycling batteries, please follow local regulatory requirements;
- 6. It is prohibited to use open flames when handling batteries;
- 7. The charging room should have good ventilation;
- 8. Do not connect or remove the battery when the key switch is in the on position;

Before disassembling the battery, first disconnect the negative (-) battery wire, and then disconnect the positive (+) battery wire. When rewiring, be sure to pay attention to the polarity of the battery, as incorrect connections can damage electrical components;

10. Avoid direct contact between the positive and negative electrodes, as it can cause high current short circuits, generate high heat, and even have the possibility of catching fire.



4.6 Safety instructions for vehicle transportation

The entire machine is packaged and fixed on a specially designed pallet, and can be transported by a forklift. This machine can only be placed on a single layer.

Whole machine size: Length: 2239mmWidth: 2060mmHeight: 2128mm

Package size: L: 2239mm W: 2060mmH: 2286mm

4.7. Safety instructions for maintenance and upkeep

All necessary operations, maintenance, and repair procedures must be completed by professionals. Please choose our company's original accessories. Please contact our company's after-sales service center to purchase accessories or for repairs. Please provide detailed information on the machine model and body number.

By combining daily and weekly maintenance, problems with the sweeper can be detected in a timely manner, keeping it in good working condition and ensuring work efficiency.

Moreover, paying attention to maintenance and upkeep not only ensures the efficiency of the sweeper, but also greatly benefits its service life. You should cultivate this good habit!

5.1 Equipment appearance



5.2 Interface/power switch





5.3 Garbage bin





- 1. Electricity meter: displays the current available electricity level.
- 2. Horn: Press type horn.
- 3. Watering: Start by sprinkling water, then stop by sprinkling water.
- 4. Vibration: Press the vibration button to start working, and then press the vibration button to stop working.
- 5. Edge brush: Press the edge brush to lower and start, and then press the edge brush to raise and stop working.
- 6. Main brush: Press the main brush to lower and start, and then press the main brush to raise and stop working.

Gear: Press the vehicle's forward gear forward and then press the vehicle's reverse gear backward



5.5 Pedal



6.1 Preparation/safety check before startup



Ensure that the left and right doors and trash cans under the driver's cab/sweeper are properly closed during normal operation of the machine. If the machine has been transported, check if all components have been moved during transportation.

6.2、Add water





When adding water, attention should be paid to the amount of water and do not overflow. (Please use tap water, there must be no particles such as sediment in the water source)

7.1. Driving mode



- Ensure that the edge brush and main brush are in the raised position.
- Insert the key and turn to the ON position (if you need to turn on the headlights, turn to the lighting position).
- Move the forward/backward switch forward to the forward gear, press the speed regulator pedal, and the sweeper can move forward

7.2. Sweeping mode



- Press the main brush and edge brush buttons forward, and the main brush and edge brush will automatically lower for cleaning.
- After the cleaning is completed, turn off the sweeping switch, and the main and side



brushes will automatically lift and stop rotating.

- Move the forward/backward switch forward to the forward gear, press the speed regulator pedal, and the sweeper can clean the ground.
- If it is necessary to clean large garbage (such as leaves, cigarette boxes, etc.), press
 the large garbage pedal and drive at low speed to the area that needs to be cleaned.
 The main brush can sweep the large garbage into the dustbin.
- If the working environment is poor, stop sweeping the floor and start the dust filter vibrator after a certain time interval (press and hold the dust filter button);
- Check the amount of garbage in the garbage bin in a timely manner;
- Through obstacles
- Obstacle height within 5cm
- It can be safely passed through. Step on the large garbage pedal and raise the main and side brushes before driving.
- Obstacle height greater than 6cm
- Only after introducing a slope can it pass through

7.3. Dumping garbage



- 1. Release the pedal to stop the machine.
- 2. Open the trash can buckle.
- 3. Pull down the trash can and then drag it out.
- 4. Put the trash can back into the machine and fasten the trash can buckle.
- 5. The machine is ready for further work.

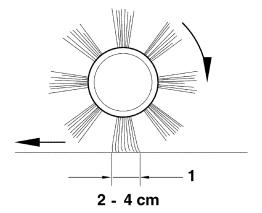
7.4. Close device



After completing work, before leaving the machine, please perform the following actions:

- 1. Press the stop button to start the main and side brushes.
- 2. Press the dust vibrating button to vibrate the filter.
- 3. Empty the trash can

Remove the key from the power switchAfter completing work, before leaving the machine, please perform the





following actions:

- 1. Press the stop button to start the main and side brushes.
- 2. Press the dust vibrating button to vibrate the filter.
- 3. Empty the trash can

Remove the key from the power switch.

8.1. Check/adjust additional equipment

Check the pressure of the main brush on the ground

- 1. Check if the main brush is in the correct position off the ground, and the process is as follows:
- 1. Use the machine on a level ground.
- 2. Keep the main brush of the machine stopped and rotated for a few seconds.
- 3. The main brush should maintain a distance of 0.5cm from the center to the ground radius.

When the brush is too worn and cannot be adjusted, replace it according to the instructions in the next paragraph.



Craeful

If the distance between the main brush and the ground is less than the radius minus 0.5cm, the normal operation of the machine will be affected, and the spare parts will become hot, which will reduce the service life of the machine. Please be careful when performing the aforementioned checks and only use the machine under the conditions mentioned above

9.1. Dragging vehicles



Careful!

When the machine is turned off or malfunctioning, it is necessary to push/drag the machine to ensure that the speed does not exceed 3km/h

10 Storage



Careful!

Do not store cans containing liquids on the machine.

The machine should be stored between 0 $^{\circ}$ C and 40 $^{\circ}$ C.

When using the machine, the temperature should be between 0 °C and 40 °C. If it is necessary to use in an environment between 0 °C and -20 °C, consult the supplier before use.

When using or storing the machine, the humidity should be between 30% and 95%.

X Do not store or use the machine in harsh sunlight, heavy rain, and bad weather.

11, General description





To perform maintenance operations, the machine must be stopped (by removing the start switch key), and if necessary, the battery must be removed. Therefore, please read the safety section of the manual carefully.

11.1 Maintenance Cycle



After the first use (8 hours), it is necessary to check:

- 1. Have the connection and fastening parts been properly tightened
- 2. Check if visible spare parts are intact and undamaged

11.2 Maintenance tasks



To perform maintenance operations, the machine must be stopped (by removing the start switch key), and if necessary, the battery must be removed. Therefore, please read the safety section of the manual carefully

11.3 Maintenance cycle table

Maintenance operations	Delivery	Every10	Every50	Every10	Every20	Every40
	time	hour	hours	0hour	0hour	0hour
		s (1)	(1)	s (1)	s (1)	s (1)
Inspection of height						
adjustment for edge and						
Whether the main and						
side brushes are wired						
Cleaning and complete						
inspection of garbage						
Skirt height and operation						
inspection						
Drive the rear axle oil						
hole for refueling						
Filter element vibration						
dust inspection						
Visual inspection of the						
main brush drive belt						
Screw and nut tightening						
inspection						
Regularly check the						
tightness of the brakes						

	A		■ ®
l ı	/\	l I	

Check the wear of the main and side brushes			
Replacing the main brush drive belt			
Inspection and replacement of main			
Regularly check the tightness of the drive			
Drive chain maintenance lubricating oil			
The charger should be			
stored in a safe, ventilated, and dry place			

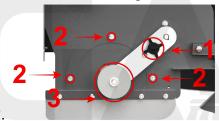
11.4 Replacement of consumables

Replacement of the main brush



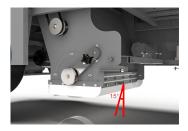
Careful!

1. It is best to wear gloves when replacing the main brush, as it may be cut by fur.



- 3. 1. Unscrew the star shaped nut marked as "1", remove the main brush support rod, and then unscrew the screw marked as "2" to remove the left baffle. Measure the height difference between screw 3 and the ground within 2mm during installation. If there is any difference, adjust screw 1
- 2. After disassembly, remove the main brush.





- 3. The front bumper adjustment should tilt backwards by 15°
- 4. Please note that during installation, the main brush must be lowered and installed along the arrow direction, which points to the front of the vehicle.







The running direction of the main brush is shown in the diagram, and it should be installed correctly according to the diagram. According to the relevant chapter description, check the pressure between the main brush and the ground.

Edge brush replacement

1. Dismantling and replacement of edge brushes





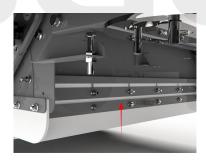
•Loosen the three screws inside the red circle in order, turn them to the left until they come out of the circular mouth, and then remove the edge brush.

When installing, be sure to rotate in the opposite direction and tighten the screws after locking.

Cleaning and complete inspection of garbage filters

Twist the two buckles inside the red circle in order, and forcefully drag the fan access door outward to remove the filter element assembly.





- Please clean the dust without damaging the filter cotton body
- When replacing the filter element, lubricating grease needs to be applied to the oil seal of the filter element

Replacing the front lifting gear cover

When replacing the front lifting gear, the main brush must be removed, the trash can must be pulled out, and the rear spray gun must be removed.

When replacing the front lifting gear, the brake pads must be clamped to ensure that the vehicle does not slide.

After the brake pads are stuck, raise the front of the vehicle to 45° to tilt and stand.



Remove the screws in the red circle one by one, then remove the discarded shield and replace it.

12. Troubleshooting

Issues		Reason			Solution
Turn on the power		Air switch trip			Close the air switch
switch. There is no power display on the dashboard		Is there voltage output from the battery			Charging; Replace the battery (if not used for a long time, please charge it every two months)
			ne walking motor operates normally		Replacing the gearbox gears
		D	bnc	Motor burnt out	Change the motor
		ffere	orma	Air switch tripped	Close the air switch
	No driving	ntial	l ope	Loose wiring	Check the wiring
Abno	No driving	Differential damage	eratior motor	Controller or throttle damaged	Replace the controller or throttle
rmal n		age	bnormal operation of walking motor	Brake travel switch faulty	Replace the brake travel switch
nachin	nachin		alking	The main switch is faulty	Replace the main switch
e m	Abnormal machine movement Only advancing without retreating or only retreating without advancing		ne mair	switch is faulty	Replace the main switch
ovement			Dama	aged throttle	Replacing the throttle
	"—— "		Dama	aged throttle	Replacing the throttle
	"Flying car"		Contro	ller damaged	Replacing the controller
			travel s	switch is damaged	Replace the travel switch
		Damaged electric push rod			Replace the electric push rod
		Damaged side brush motor			Replace the side brush motor
Brush	Brush not working		maged	l main brush belt	Replacing the main brush belt
		The "edge brush" button is damaged			Replace the "Edge Brush" button
			Air	switch trip	Close the air switch



	The sweeping relay is damaged	Replace the sweeping relay	
	Brush wear	Replacing brushes	
	Wear of the windshield	Replacing the windshield	
	The brush handle does not	Check the cause of jamming	
	descend properly, and the steel	and troubleshoot the	
	wire rope is stuck	problem	
	The filter is blocked	Vibration dust for 2-10 minutes	
Sweening not clean	The filter fan motor is not		
Sweeping not clean	working,	check wiring	
	Loose wiring		
	The filter fan motor is not		
	working,	Change the motor	
	motor burnout	_	
	The filter fan motor is not		
	working,	Change the carbon brush	
	Carbon brush wear	3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
		Reduce the speed during	
Cleaning vehicles	Working too fast	work	
that leak large	The pressure on the brush is	Adjusting brush pressure	
leaves or large	too low		
garbage particles	Brush bristles deformed or		
	entangled with silk thread	Remove rope or wire	
The cleaning vehicle		01 11 511	
leaves dust on the	Filter clogged	Clean the filter	
floor or dust from the	Democrated direct deflector	Check the dust deflector and replace it if damaged	
side dust deflector	Damaged dust deflector		
Incomplete cleaning,		Repair the dust deflector and	
leaving paper	The lifting mechanism of the	step on the foot pedal to lift it	
scraps, leaves, or	front dust shield is not working	up and down	
other debris	_		
Garbage is rushing	Democrated from the direct objects	Replacing the front dust	
forward	Damaged front dust shield	deflector	
The main brush rolls		Depleasing the frent dust	
up the front dust	Damaged front dust shield	Replacing the front dust	
shield	-	deflector	
The brush wears out	The brush is pressed too tightly	Reduce brush pressure	
too quickly	The floor is very rough	rzeduce prasti pressure	
The main brush	The hands is a second of the control		
makes loud noise	The brush is wrapped with a silk	Remove debris	
during operation	rope		
The brush does not	Danie and Income a land a land	Dealering the second of the	
rotate during	Damaged transmission belt	Replacing the conveyor belt	
rotate during			



operation			
Brushes and fans not working	Blown fuse	Replace the fuse	
Dust collection box	Damaged sealing strip of dust collection box	Replace the sealing strip	
leaking garbage	The trash can is too full	Discarding garbage	
When the drive	Drive motor cable broken	Check wiring	
motor is working, it	Damaged pedal adjuster	Repair Governor	
neither moves forward nor moves	Control switch damaged	Change switch	
backward	Air switch trip	Close the air switch	
	Battery burnt out	Change the battery	
The bettery connet	Charger	Check the input current of the charger	
The battery cannot be charged	Loose battery terminals	Check and tighten the battery terminals	
	Battery overvoltage	Reduce brush pressure (tension cable)	
Battery discharge	Insufficient charging time	Increase charging time	
too fast	Battery burnt out	Replacing the battery	
The water tank does not discharge water	Check if the diaphragm pump is functioning properly	Clean or replace the diaphragm pump	
or the water volume is low	Water pipe filtration and Remove the water cleaning filter and remove of		

13、Warranty Statement

One year warranty



Note:

The following phenomena that occur during the warranty period are not considered quality issues of our company's products

- 1. Charger damage caused by improper operation due to violations;
- 2. Unauthorized opening of the charger without permission from our company may cause damage to the charger.
- 3. Improper handling, such as knocking, bumping, or falling, may cause damage to the machine;
- 4. Charger damage caused by water ingress or moisture;
- 5. The charger is damaged due to the instantaneous high voltage of the power grid (causing more than 10% of the national regulations);



- 6. Damage caused by severe pulling of input and output cables;
- 7. The battery cannot be fully charged due to unauthorized extension of input and output cables:



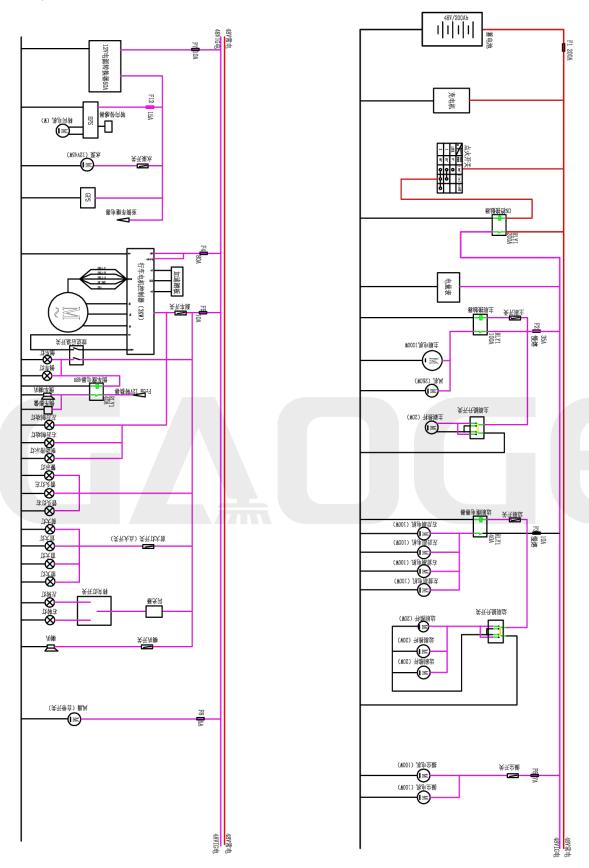
Under the following usage conditions, there is no warranty

- 1. Mechanical damage or malfunction caused by not following the maintenance manual for use, maintenance, and upkeep.
- 2. Improper human operation caused significant damage to the mechanical appearance and structure.
- 3. Dismantling or modification not approved by the original factory.
- 4. Damage caused by weather or force majeure.
- 5. Consumable parts (main brush/edge brush/belt/pulley/filter, etc.).
- 6. Exceeding the warranty period by 1 year or using for more than 1500 hours.
- 7. Rollover and other malfunctions caused by loose drive chain.



GAOGE®

14、Circuit



15. Essential after-sales tools

15.1、Tool List





15.2 Selection tool



15.3. Common item options -1



15.4 Common item options -2

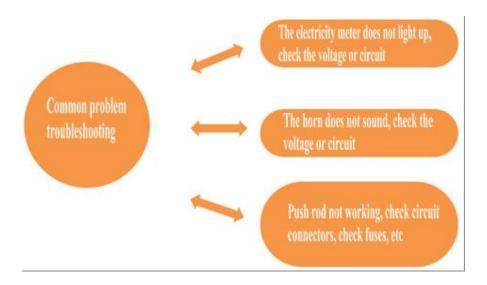




15.5 Standing hardware

通用常备五金							
法兰外六角螺丝	不锈钢内六角螺丝	尼龙防松螺母	法兰外六角螺母				
			999				
常用规格: M6*20/ M6*25	常用规格: M6*15/ M6*20/M6*45	常用规格: M6	常用规格: M6				
常用规格: M8*20/ M8*25/ M8*30	常用规格: M8*15/ M8*20/M8*25/M8*60	常用规格: M8	常用规格: M8				
常用规格: M10*25/ M10*30/ M10*35		常用规格: M10	常用规格: M10				

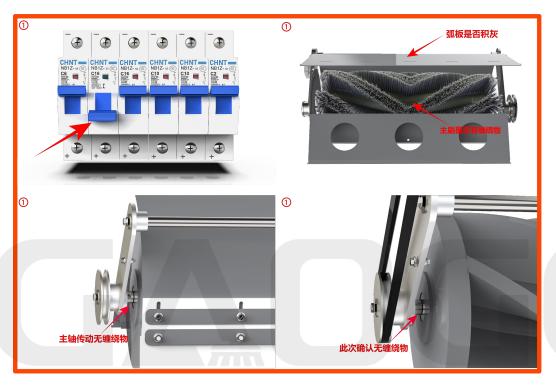
16. General problem troubleshooting





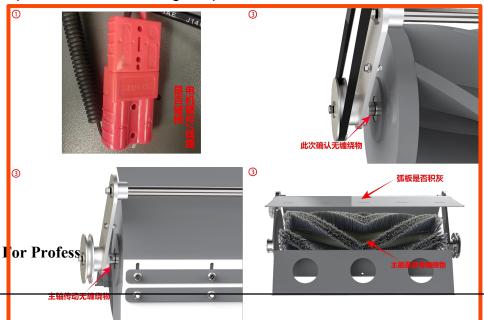
16.1. General troubleshooting - main brush not working

- 1. Check if the main brush air switch is frequently disconnected, check if there are any objects entangled inside the main brush, and check if the dust accumulation inside the arc plate is severe
- 2. Check if there is a suction sound from the contactor of the electrical box. If not, confirm that the contactor is damaged or the control switch is damaged



16.2. General troubleshooting - main brush not working

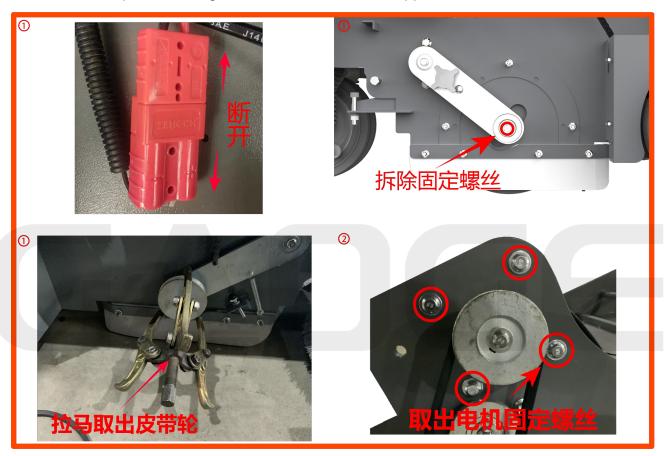
- 1. Check if the main brush motor plug-in is damaged, and confirm that the circuit is not damaged or detached.
- 2. Measure the voltage of the motor plug to confirm if the motor is burnt out.
- 3. Replace the main brush motor to confirm the cause of motor burnout, and confirm the replacement after solving the problem





16.3 General troubleshooting - motor replacement

- 1. Remove the main brush motor belt, unplug the internal motor connection plug, use an Allen wrench to fix the screw on the belt, and use a puller to remove the pulley.
- 2. Use a wrench to remove the motor fixing screws, remove the motor, and then install a new motor in the removal sequence.
- 3. Attention: The motor pulley is on the same horizontal plane as the motor pulley. The distance can be measured with an angle ruler before tightening the motor pulley. After installation and power testing, the motor rotates in the opposite direction and is correct

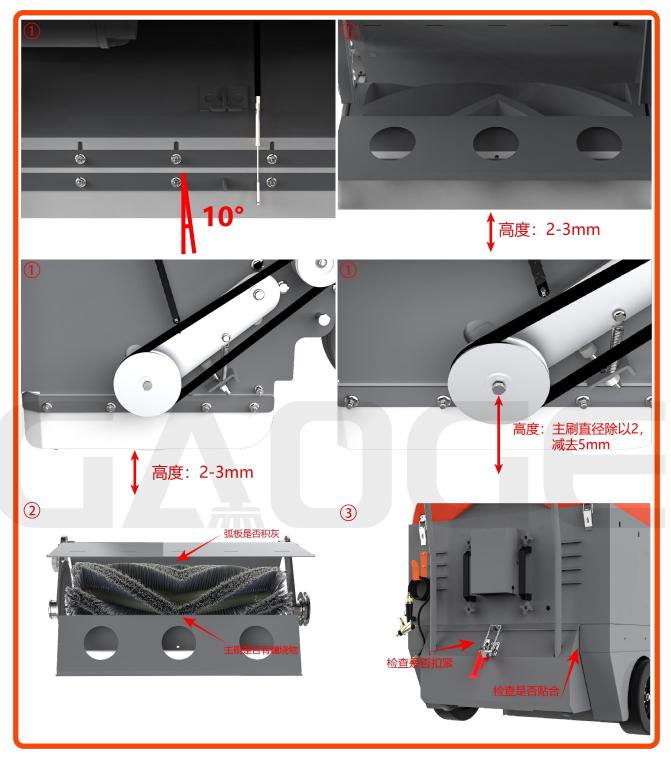


16.4. General troubleshooting - vehicle not cleaned thoroughly

- 1. Check if the surrounding fenders are intact, tilt the front fenders backwards by about 10 °, and ensure that the rear fenders are against the ground. The height of both sides from the ground should be about 2-3mm. Adjust the distance between the center of the main brush and the ground. Divide the diameter of the main brush by 2 and reduce it by 5mm. Note that it should not be lower than the specified size to avoid motor overload and damage.
- 2. Check whether the fan is working, whether there is a large amount of dust accumulation in the filter element, and whether there is a large amount of sludge accumulation in the main brush arc plate
- 3. Check whether the bottom garbage bin mouth is in line with the garbage bin, and adjust the garbage bin locking buckle.



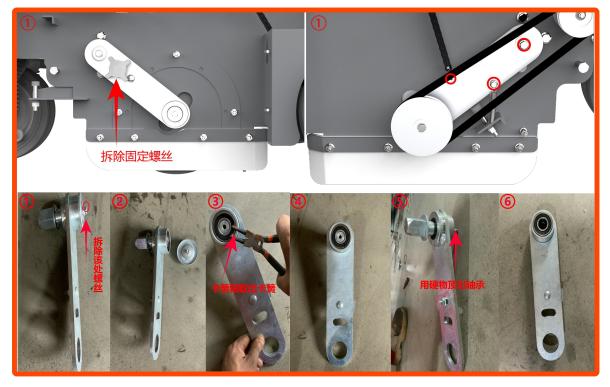
4. Check that the main brush motor rotates in reverse direction



16.5. General troubleshooting - synchronous disc replacement

- 1. Remove the fixing screws at the marked area in the picture, take out the synchronization plate, remove the excess fasteners on the synchronization plate, and remove the pulley and the main brush square shaft.
- 2. Use snap ring pliers to remove the bearing plug snap ring and remove the bearing.
- 3. Install new bearings in the removal order and confirm that the bearings rotate without any abnormal noise or interference





16.6. General troubleshooting - replacing the brush motor

- 1. Remove the edge brush and install the stop screw on the flange, then remove the edge brush
- 2. Remove the motor plug and remove the motor mounting screws to replace the motor
- 3. After replacing the motor, pay attention to the direction of the terminal connector to avoid damaging the motor after reverse insertion and power on1. Remove the edge brush and install the stop screw on the flange, then remove the edge brush
- 2. Remove the motor plug and remove the motor mounting screws to replace the motor
- 1. 3. After replacing the motor, pay attention to the direction of the terminal connector to avoid damaging the motor after reverse insertion and power on



16.7. General troubleshooting - Introduction to electrical box structure

- 1. Short circuit protection of various electrical components in the main control of the air switch
- 2. Control the vibration dust, main brush, side brush, fan, push rod, and overall control For Professional Users & Industry



from left to right

- 3. If the electrical components are found to be not working when activated, check if the air switch is disconnected
- 4. Before using the power supply, check the order of the air switch and eliminate any abnormalities in the electrical components before using the power supply to avoid damage to the load of the electrical components during use

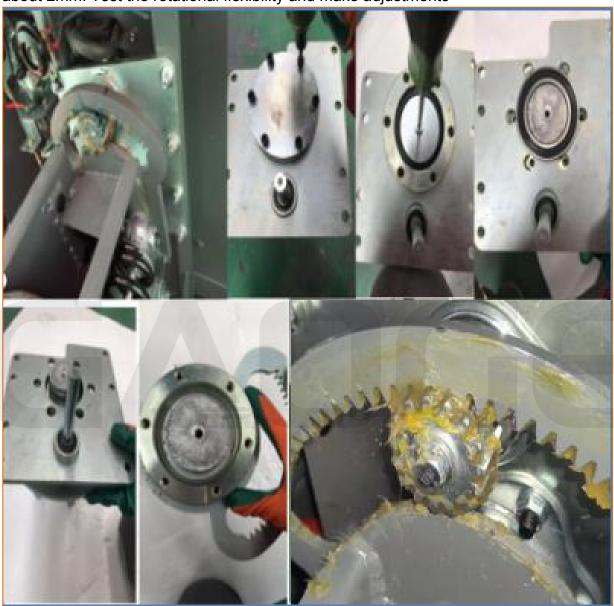


16.8 General troubleshooting - steps for disassembling and installing the front wheel assembly

1. Use auxiliary equipment such as forklifts, cranes, and jacks to lift the front face of the machine. Note: take corresponding protective measures after lifting



- 2. Use the corresponding tools to remove the corresponding fasteners of the assembly, then take out the front wheel assembly. Loosen the screws of the dust cover and take out the dust cover. As shown in the figure, use a puller to remove the bearing. The installation sequence should follow the disassembly process
- 3. Attention: After installation, adjust the gap between the teeth and the tooth plate by about 2mm. Test the rotational flexibility and make adjustments



16.9 General troubleshooting - abnormal charging detection and maintenance

1. Use a multimeter to measure if the charging port is powered on



2. Check if the positive and negative poles of the charging port circuit are correct

3. Measure the continuity of the circuit with a multimeter and conduct a test

to ensure power supply



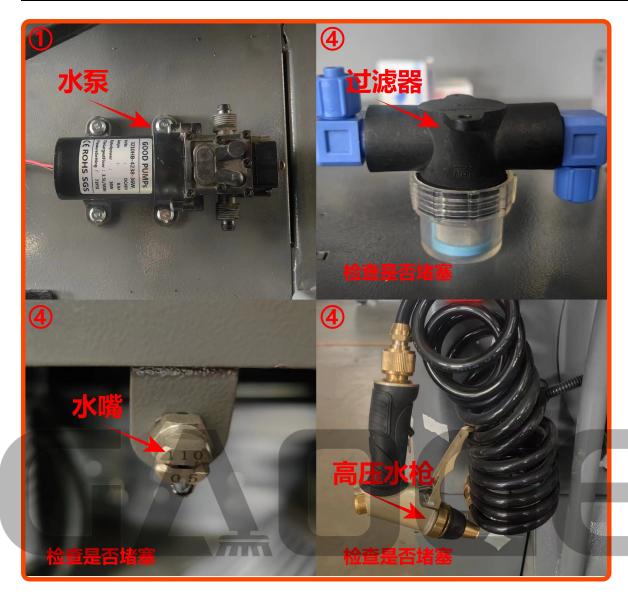
2. Eliminate circuit faults, poor interfaces, and other issues, confirm charger issues, replace and test

16.10 General troubleshooting - water pump inspection and maintenance

- 1. Check if the water pump plug is loose
- 2. Turn on the working switch of the water pump, check if the water pump has output pressure, and use a multimeter to check if the output pressure is around 48V
- 3. If the voltage of the water pump is normal, it indicates that the water pump is damaged. After detecting that there is no voltage, check whether the switch and circuit are disconnected

The water pump is not working and does not produce water. Check if the filter is blocked and if the water nozzle at the water connection is blocked





16.12 General troubleshooting - fan inspection and maintenance

- 1. Check if the fuse air switch is broken or disconnected
- 2. Check if the plug and terminal clamp are loose
- 3. Use a suitable wrench to remove the fasteners marked in the diagram and remove the fan. Replace the new fan in the installation sequence

Attention: The installation and idle operation of the fan should not interfere with the flow deflector in any way to avoid motor load burning and abnormal noise during operation





16.13 General troubleshooting - brake oil drain repair

- 1. Open the front face of the rotary molding, find the oil pot and open the lid. Step forward and backward continuously without releasing it. Find the oil outlet of the slave pump, loosen the screw, and immediately lock it after releasing the oil.
- 2. Step on the brake to see the effect. If the effect is still poor, repeat the above steps continuously to adjust



notor

For Professional Users & Industry



1. Power off the entire vehicle, use a wrench to remove the control yellow, green, and blue motor connection wires, as well as the Hall plug wires. Remove the motor fixing screws to remove the motor, and replace it with a new one in the disassembly sequence 2. Pay attention that the motor sealing gasket cannot be omitted during installation, the sequence of motor connection wires cannot be installed incorrectly, and the wire ends and Hall wires cannot be connected falsely or loose

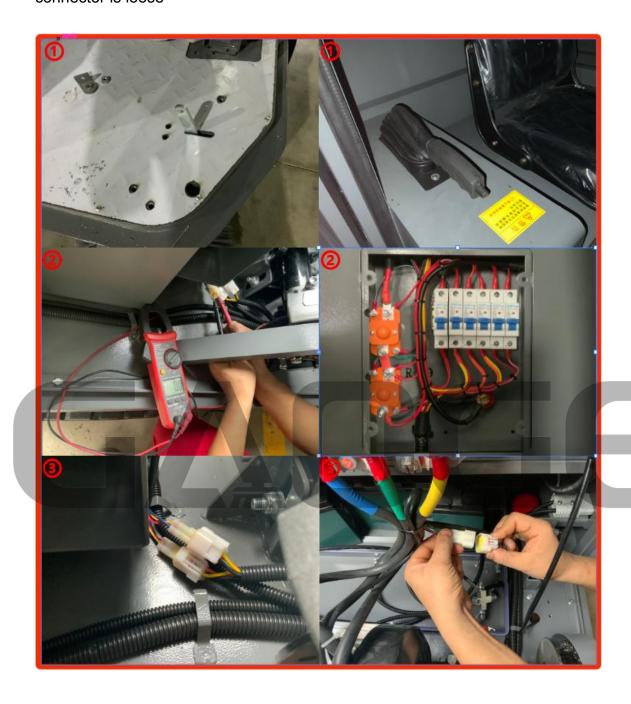


16.15 General troubleshooting - common driver issues

- 1. Check whether the brake returns to its original position and whether the positive and negative poles of the controller are powered
- 2. Check if the accelerator is powered on. Use a multimeter to measure the black and white wires of the nine hole plug-in in the electrical box. The normal voltage is 0.8V, and the voltage changes from 4.2-4.8V when stepping on the accelerator. If there is no display change, it indicates that the accelerator is damaged and needs to be replaced
- 3. Check the alarm sound of the controller, and refer to the controller fault code to solve and troubleshoot the problem
- 4. Can the vehicle move without brakes? If it cannot move, check if the brakes are locked



5. When the motor is damaged, it usually walks intermittently. Check if the circuit connector is loose



17. Afters sales process

Video guidance and explanation



七、Service commitment

GAOGE Cleaning Equipment — After-Sales Service Policy

1) Lifetime On-Site Service (Within 100 km)

Zhangjiagang GAOGE promises lifetime free on-site service and maintenance labor for customers located within 100 km of any city where our headquarters or a branch is located. (Limited to eligible locations only.)

2) Yangtze River Delta (Jiangsu, Zhejiang, Shanghai)

For customers in the Yangtze River Delta region of East China, GAOGE provides lifetime quarterly maintenance from the date of purchase.

- 3) Warranty-Period Support (Within 1 Year of Purchase) for Customers Located More Than 100 km Away
- 3.1 Factory Repair (Freight Covered by GAOGE):

If the equipment malfunctions, GAOGE will cover the transportation cost to ship the damaged equipment to our company for repair and return it to the customer.

3.2 Self-Repair With Parts Supplied:

If the customer can perform the repair but lacks the parts, GAOGE will cover the shipping cost to send new parts to the customer.

Customers may replace the parts themselves. (For accessories priced under RMB 3,000, parts may be shipped first and compensation settled afterward.)

After completing the repair, the customer must return the damaged parts to GAOGE so we can claim compensation from the supplier.

3.3 Damage Due to Misuse or Insufficient Maintenance:

If damage is caused by improper operation or inadequate daily maintenance, the customer will bear 50% of the equipment shipping and travel expenses, and accessory costs will be charged as usual.

If the same mistake occurs more than three times and causes equipment damage, GAOGE reserves the right to charge full fees or decline renewal of coverage.

Thank you for using GAOGE products.

GAOGE®

Dear user:

Hello!

Thank you for using our company's products. Please keep this manual safe for future reference.

The following matters are formulated in accordance with safety regulations and must be followed to prevent harm. This machine can only be used for floor cleaning, and any consequences caused by other usage behaviors are the responsibility of the user:

◆ Any inspection or maintenance must first turn off the power switch and disconnect the battery connection wire;

Before using this device, the operator must be familiar with the operating manual and precautions, and it is strictly prohibited for children to operate or operate under the influence of alcohol;

The battery must be kept away from sparks, flames, flammable gases, and substances to prevent explosions;

When in contact with mechanical and electrical parts, it is necessary to pay attention to safe operation;

This cleaning equipment should not be used in areas where flammable and explosive dust, liquids, and gases are present;

The battery pack must be charged indoors in a well ventilated environment; It is recommended to use original factory components for this equipment;