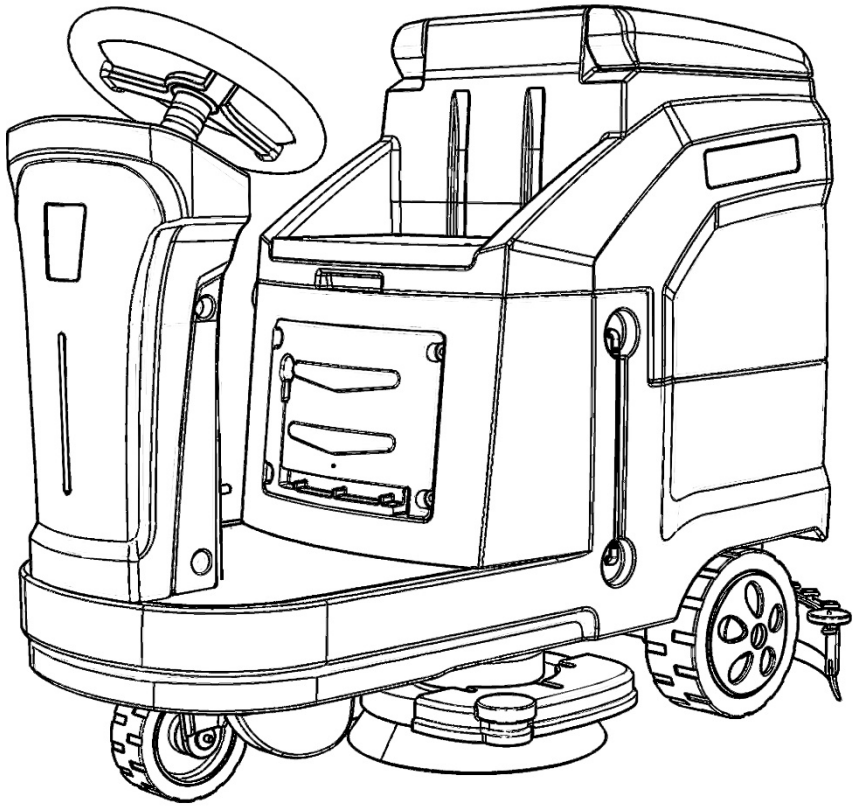
K70

Ride on Floor Scrubber

Operation Instructions



11/2023

Do not use this device without reading this manual.

Preface

Thank you for choosing our cleaning equipment. We are confident to provide you with this equipment, which is produced through the latest technology and strict quality control.

This manual is designed to help you understand the equipment operation and maintenance, so you can have a more comfortable and efficient product experience. Please read through this manual before using equipment.

Safety Precautions

To ensure the safety of you and your device, please follow these important usage rules!
Do not use this device under the influence of alcohol or medication.
Before any maintenance or repair, please turn off all switches.
This machine must be used by qualified and authorized personnel. Minors and disabled persons are not allowed to use it.
Keep sparks, flames, and smoke away from batteries.
Do not use it in places with dangerous, flammable, or explosive gases, liquids, or steam.
Dress appropriately and do not wear loose clothing or jewelry; keep clothing, gloves, and hair away from moving parts.
Please do not smoke while charging the battery.
In the event of a fire, remember to use a powder fire extinguisher rather than water.
Even when the machine is to be dismantled and scrapped, the process must be watched because some harmful substances (such as batteries, waste oil, etc.) meet the standards and should be sent to a specific center for processing.

Safe Use

1. Before using the equipment, please read this user manual carefully, which will ensure that you are familiar with the control and maintenance requirements of the equipment and help you use the equipment safely.
2. If the machine is used by other people, please be sure to hand over the instruction manual together and tell them to read this manual carefully before using it.
While reading this user manual
This manual covers all configurations of this series of products; therefore, you may find that some of the information does not apply to your device.
All information, specifications and illustrations in this manual will be effective once it is published. Our company reserves the right to change specifications or designs without prior notice.
In this manual, we use (⚠) symbol along with the word "Warning" to indicate the existence of a hazard that may result in death or serious personal injury; in order to avoid or reduce the hazard, the steps must be strictly followed.
In this manual, we use (⚠) symbol along with the word "Caution" to indicate the existence of hazards that may cause minor or moderate personal injury or equipment damage; in order to avoid or reduce the hazard, the steps must be strictly followed.
A mark similar to this (⬅ ➡) indicates that the arrow points in the direction of the equipment's forward direction.
An arrow similar to this ( )indicates movement or action.

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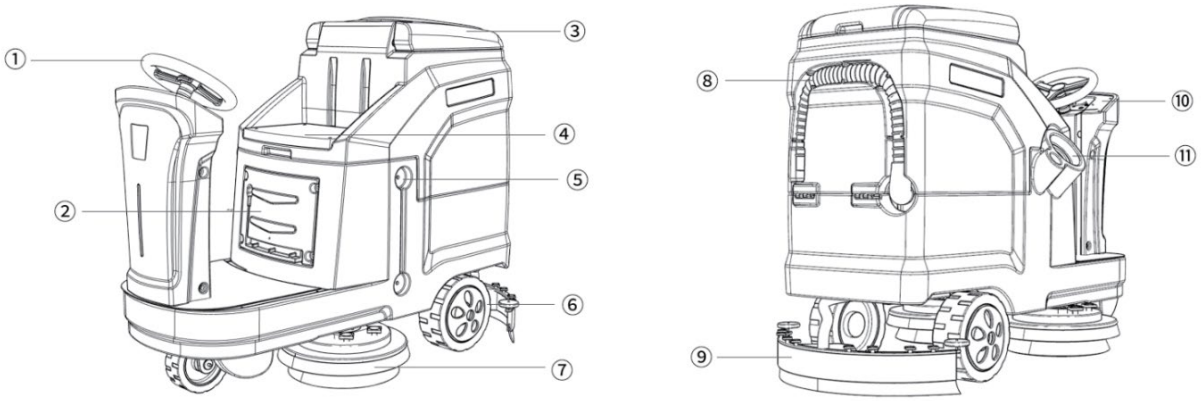
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Chapter 1 Product Introduction

1.1 Applicable scenarios

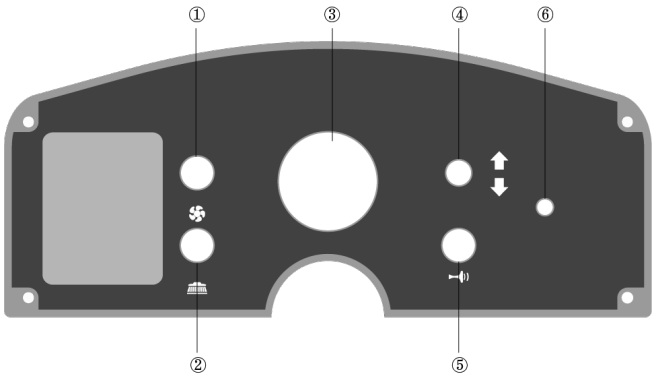
This equipment can be used in a variety of scenarios, including commercial and industrial places , such as hotels, schools, hospitals, industrial offices, supermarkets, office buildings, etc.; for epoxy floors, PVC floors, terrazzo, wear-resistant floors, tiles and cement floors , wooden floors, rubber floors, different floors can be cleaned with brush plates made of different materials.

1.2 Equipment Overview



N0.	Name	Function
①	Steering wheel	Control machine ‘s direction
②	Access panel	For machine maintenance
③	Sewage tank cover	Prevent sewage from splashing
④	Cushion	Driving seat
⑤	Water level gauge	Display the amount of clean water
⑥	Tire	Anti-slip silent tire
⑦	Brush plate	Cleaning the ground
⑧	Sewage draining tube	Discharge sewage
⑨	Squeegee	Collect ground sewage
⑩	Control panel	Machine's control panel
⑪	Water inlet port	Inlet clean water

1.3 Controlling panel/Buttons.



N0.	Name	Function
①	Suction switch	Turn on this switch and the suction motor starts to work
②	Brush plate switch	Turn on this switch and the brush plate will rotate to clean the floor
③	Voltage display meter	Display the battery level and real-time voltage of the device
④	Forward and backward switch	Turn on this switch, the machine will move forward/ backward
⑤	Horn switch	Press this button and the horn will sound
⑥	Fault indicator	When a fault occurs, this indicator flashes

1.4List of accessories

When you open the package, you will find the following components in the package, please check the components listed in the table, if anything missing, please contact us timely.

N0.	Name	Quantity
①	Host	1
②	Charging cable	1
③	Squeegee assembly	1
④	Tool kit	1
⑤	Operation instructions	1
⑥	Warranty card	1
⑦	Spare fuse	2

1.5 Consumables and optional accessories

The consumables for this equipment are listed in the table below, and in case of wear and tear, you need to purchase or replace them.
This device can adapt to different scenarios through different optional accessories, and you can purchase it through suppliers or manufacturers.

Consumables	Optional items
Brush plate	Pad holder
Rubber strip	Cleaning pad (red)
Pad holder	Cleaning pad (black)
Cleaning pad (red)	Cleaning pad (white)
Cleaning pad (black)	Lithium battery
Cleaning pad (white)	Liquid-filled battery
/	Lead-acid maintenance-free battery

Chapter 2 Installation

2.1 Unloading

⚠ **Warning**

Please carefully disassemble the outer package to avoid damage to the machine shell.
It is recommended to keep the packaging boxes after receiving the goods so that the machine can be repackaged during later product transportation or return or exchange.
It is prohibited to violently unload the machine to avoid damaging the parts.
Place the unloading wooden pallet, remove the wooden blocks that fix the big wheels, and then move the machine backwards to unload the equipment from the pallet.

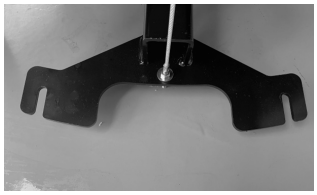
2.2 Installation

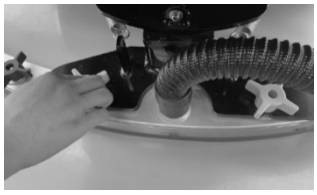
2.2.1 Squeegee installation

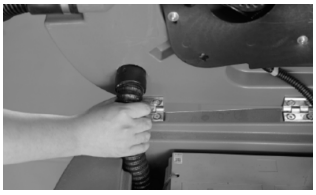
Before normal operation of the machine, make sure that the squeegee is installed correctly, and the sewage suction tube has been inserted into the water suction port.

Step 1: Pull down the handle to lower the squeegee tripod.
Step 2: Pass the fixing screw through the hole of the tripod and tighten it with a plastic knob.
Step 3: Insert the tapered end of the sewage suction tube into the sewage hole of the water tank, and then insert the other end into the suction port of the squeegee.


Step 1


Step 2


Step 3


Step 4

2.2.2 Connecting the battery cables.

Open the sewage tank, and check whether the wire harness on the battery is connected and tightened.



⚠ **Caution**

Due to the different distances of logistics routes, in order to avoid battery loss during long journeys, the battery cables have been disconnected at the factory.

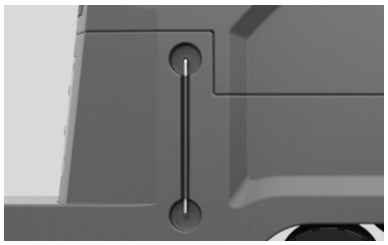
Step 1: Lift the sewage tank backwards, and check whether the wire harness on the battery is connected and tightened.

Step 2: Connect the disconnected battery poles in series. Note that the positive (+) port is red, and the negative (-) port is black. After the connection is completed, put down the sewage tank.

Chapter 3 Inspection and adjustment before use

3.1 Inspection

3.1.1Check clean water level



⚠ **Caution**

Please ensure that there is sufficient water and avoid using the suction motor when there is no water. Otherwise, the motor may take in dust. In severe cases, the noise of the suction motor will become louder, or the suction power will be insufficient.

3.1.2Check sewage level



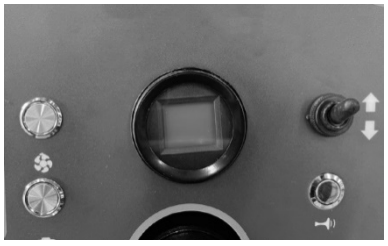
⚠**Caution**

Please pay attention to the water level in the sewage tank. When the white ball in the cage floats, please discharge the sewage in time. If you continue to use it at this time, the suction motor will be short-circuited and burned due to water intrusion.

3.1.5 Checking the degree of wear of the strip.

The strip needs to be replaced if: the strip cannot touch the ground when the squeegee is put down, or the strip is cracked.

3.1.3 Check the battery.



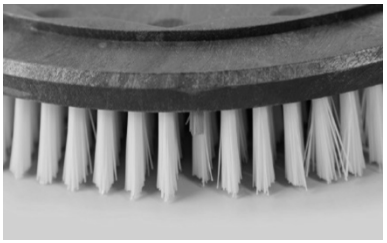
After turning on the power key switch, the battery meter will display the current voltage of the battery. When the voltage is lower than 21.6V, please charge it in time.

⚠ **Caution**

After turning on the power key switch, the battery meter will display the current voltage of the battery. When the voltage is lower than 21.6V, please charge it in time.

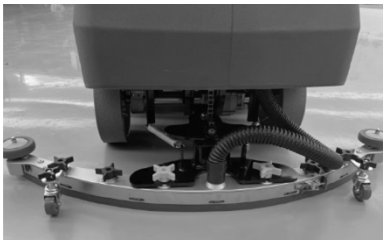
3.1.4 Check the wear of the brush plate.

Brush plate: When the length of the brush plate is found to reach the red warning line, please replace the brush plate in time. For details, see [Chapter 5 5.2.1 Replacement and Installation of Brush Plate]



3.1.5 Check the wear of the rubber strips.

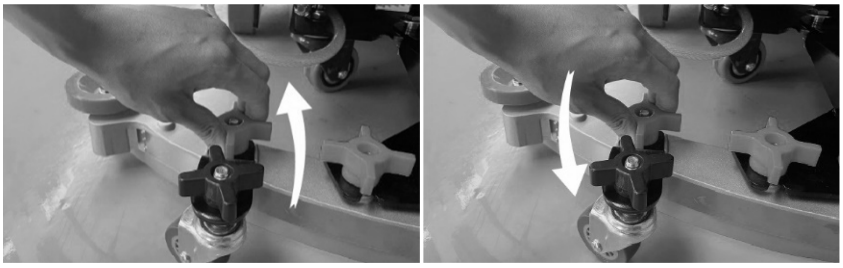
Rubber strips: Check whether the strips are damaged, deformed, aged or cracked. If so, please replace them in time. For details, see [Chapter 5, 5.2.2 Replacement and Installation of Rubber Strips].



3.2 Adjustment.

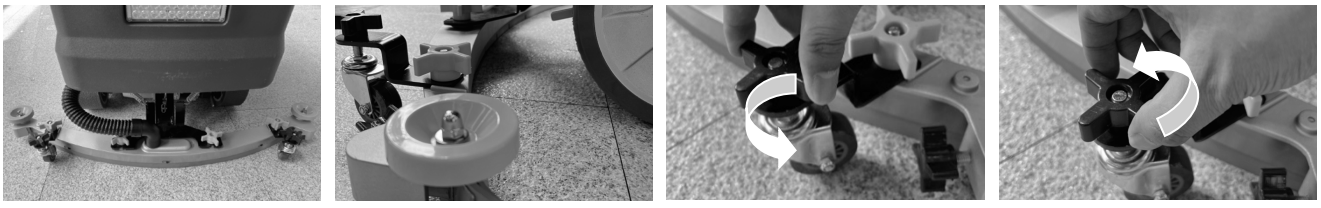
3.2.1 Adjustment of the squeegee

Turn the nuts on the universal wheel of the squeegee to raise and lower the squeegee slightly. The height of the wheels on both sides needs to be the same with that of the squeegee, and the rubber strips must fully touch the ground.



3.2.2Adjustment of the rubber strips

Step 1: Lower the squeegee assembly and observe whether the strips can touch the ground.
Step 2: Push the machine to check whether any of the rubber strips is slightly bent and whether there is leakage.
Step 3: If there is a gap between the rubber strips and the ground, you can adjust the component upward through the squeegee universal wheel.
Step 4 if the rubber strips are too close to the ground, you can adjust the component downward through the universal wheel.



Step 1 Step 2 Step 3 Step 4

Chapter 4. Operation instructions

4.1 Driving

Step 1: Turn on the key switch.

Step 2: Put the forward/reverse switch to the forward gear, hold the steering wheel tightly, and lightly press the accelerator pedal to make the machine move forward; or move the gear to the backward gear and lightly press the accelerator pedal to make the machine move backward.

Step 3 When you need the machine to stop, release the accelerator pedal and the solenoid brake will work until the machine comes to a complete stop.

⚠ **Caution**

When the machine needs to be moved backwards or changed places, the brush plate and squeegee should be raised off the ground to avoid wear of the brush plate and deformation of the rubber strips or squeegee sheet metal parts.



Step 1



Step 2



Step 3

4.2 Scrubbing

Step 1 Pull down the left lifting handle and put down the squeegee.

Step 2 Pull down the right lifting handle and put down the brush plate.

Step 3 Turn on the main power switch and press the brush plate and the suction switches.

Step 4 Put the forward and backward switch to forward gear, hold the steering wheel tightly, and lightly press the accelerator pedal to keep the machine running smoothly.



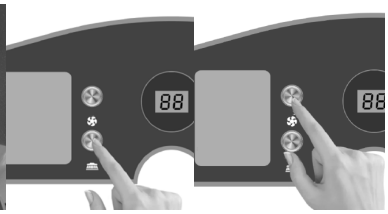
Step 1



Step 2



Step 3





Step 4

⚠ **Caution**

Avoid stopping the machine in the same place for a long time with the brush plate working, as this will leave unnecessary marks on the ground.

When cleaning an epoxy floor, a cleaning pad must be added to prevent the brush from abrading the floor.

When filling the machine with clean water, you need to pay attention to the clean water quality to avoid impurities blocking the drain valve.

After the machine has been working for a period, the sewage from the sewage tank must be discharged in time to prevent it from infiltrating into the suction motor and causing it to burn.

When cleaning a heavily oily floor, please put an appropriate amount of detergent into the solution tank to achieve better cleaning results. At the same time, an appropriate amount of defoaming agent needs to be added to the sewage tank to prevent the foam in the tank from soaking into the suction motor and causing burning. The addition ratio of cleaning agents and defoaming agents is 1:5.

After each cleaning, please flush the sewage tank in time to keep the machine well maintained.

After operation in winter, please drain the clean water from the clean water tank in time to avoid freezing and affecting re-use.

4.3 Discharging sewage



Step 1: There is a water level sensor in the sewage tank. When the water level submerges the sensor, the suction motor will stop working and the machine will not suck water. At this time, the sewage needs to be discharged. This device can effectively prevent sewage from overflowing and water from entering the suction motor.

Step 2: Drive the machine to a site that meets the sewage discharge standards, stop the machine, and turn off the power.

Step 3: Remove the sewage tube from the clamp at the rear of the machine, place it downwards, open the tube cover, and discharge the water. The inner wall of the tank can be appropriately rinsed with clean water.

4.4 Shutting down.

Step 1 After the operation of the machine, first turn off the brush plate switch and lift the handle to raise the brush plate; then turn off the suction switch and lift the handle to raise the squeegee.

Step 2 Empty the sewage in the sewage tank.

Step 3. Drive the machine into a flat indoor ventilated area.

Step 4. Turn off the main power switch and remove the key.

⚠ **Caution**

If the machine will not be used for a long time, it is necessary to fully charge it in advance and cut off the battery cable as shown in the figure below to prevent the battery from losing power due to long-term non-use.

4.5 Charging

The power system of this floor scrubber is composed of two 12V maintenance-free lead-acid batteries connected in series or a whole 24V lithium battery, and the system voltage is 24V.

When the machine has been operating for a period, the battery power will drop. When the last two bars of the power meter are red, or the voltage is lower than 21.6V, it means that the power is insufficient and needs to be charged in time.

When maintaining the battery, please wear protective gloves to avoid contact with acidic substances of the battery.

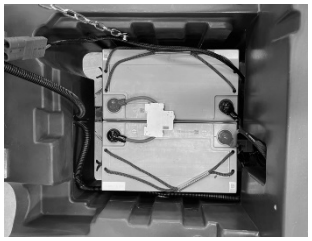
Check whether the battery connection wire is worn and whether the contacts are loose and replace it if necessary; the battery terminals should be kept clean and dry, without debris and dust covering them, otherwise it will be extremely detrimental to the battery, and in serious cases, it will burn the battery.

In order to ensure that the battery has a long service life, it should be charged in time after the machine finishes working, but deep discharge is strictly prohibited.

The correct way to charge lead-acid battery is to plug in the battery first, then the mains power; after charging, cut off the mains power first, and then the battery plug.

when the machine is not used for a long time, please fully charge the battery, and store the battery with the positive pole (+) disconnected.

⚠ **Caution**



In addition to lead-acid maintenance-free batteries, the batteries of this machine are also divided into liquid-filled models and lithium-ion batteries. For liquid-filled batteries, please check the liquid level of the battery every 20 days and replenish the electrolyte in time; lithium-ion batteries have a voltage protection function. When the machine voltage is lower than 21.6V, the power output will be automatically cut off and further use of the device is prohibited. At this time, you need to charge it in time before you can continue to use it.

During use of the battery, deep discharge will cause the battery capacity to decrease and its life to be shortened. For example: the battery is often used when the voltage is below 21.6V and is not charged in time. If the machine will not be used for a long time, it needs to be fully charged in advance, and as shown in the figure below, you should cut off the connecting wires on the battery and wrap them with insulating tape to prevent the battery from losing power due to long-term non-use.

Chapter 5 Cleaning and maintenance

Proper cleaning and maintenance will increase the service life of your machine, so please check and clean the machine regularly.

5.1 Cleaning

Check and clean the wheel set and remove entangled objects.

Clean the sewage tank and sewage tubes regularly and use water to flush the dirt in the tank and blockages in the tubes.

Clean the dirt under the rubber strips regularly and wipe the strips with a cotton rag.

Check the water filter regularly. When there are impurities in the transparent cover, rotate and unscrew the cover, and rinse it and the filter screen repeatedly with clean water.





⚠ **Caution**

The machine is not a tightly waterproof device. Do not flush the machine directly with water in that it may cause a short circuit in your machine or burn out the original electrical components.

5.2 Maintenance

5.2.1 Replacement and installation of brush plate

Step 1: Park the machine on a flat ground and put down the scrubbing brush plate.

Step 2: Rotate the plastic handle counterclockwise to remove the water retaining strips.

Step 3: Loosen the bottom screws to remove the brush plate; When installing the brush plate, make sure the flange is aligned with the buckle holes, and then tighten the bottom screws.

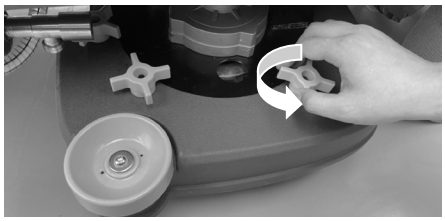
⚠ **Caution**

There are three types of cleaning pads with different hardness. Choose the more suitable one according to the site.

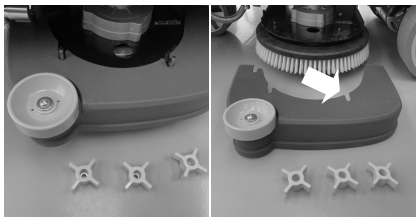
The cleaning pad must be soaked in clean water before using it for the first time for 10-15 minutes. A dry scouring pad will damage the floor.

Replacing the pad holder: The pad holder can be purchased through our company's platform. The specific replacement is to place the cleaning pad at the bottom of the pad holder and make them fit firmly.

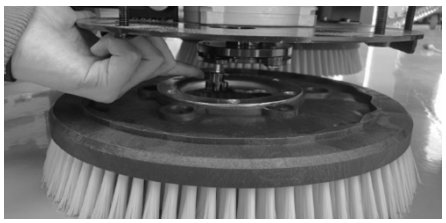
The cleaning pad and the pad holder must fit neatly together, then install the pad holder on the machine. The steps are the same as that of the brush plate.



Step 1



Step 2



Step 3

5.2.2 Replacement and installation of rubber strips

Removing the squeegee rubber strips

Step 1: Pull down the handle to put down the squeegee; rotate the plastic handle in the opposite direction and take out the squeegee assembly.

Step 2: Take out the small wheel at the rear of the squeegee, unscrew the squeegee bead fixing screws and the bead fixing clip; remove the suction squeegee bead, and take out the front and rear rubber strips of the squeegee.

Install the squeegee rubber strips.

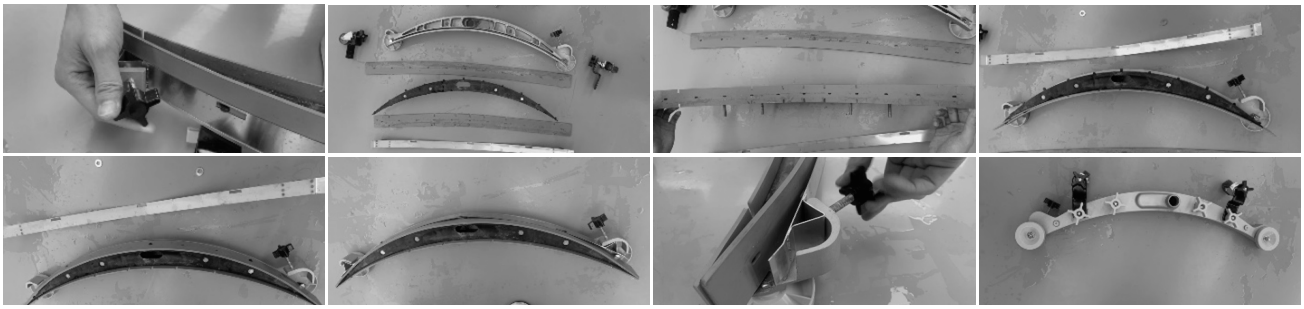
Step 1 Align the holes of the front rubber strip with the protrusions of the plastic component of the squeegee.

Step 2 Fix the plastic component on the bottom plate of the squeegee.

Step 3 Align the holes of the rear rubber strip with the protrusions of the plastic component of the squeegee.

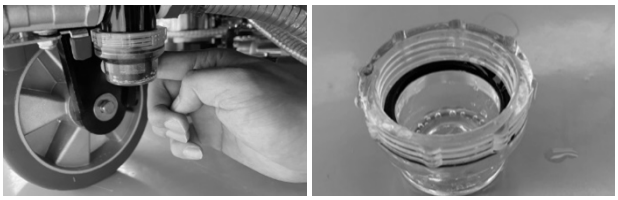
Step 4 Use pressure strips to press both ends.

Step 5 tighten the nuts.



5.2.3 Removing and installation of the filter.

The filter is located on the right side of the front wheel. After using it for a period, if it is found that the water output of the machine is small or no water comes out at all, it is most likely that the filter is blocked by particle impurities. You need to unscrew the transparent cover at the bottom of the filter and take out the internal filter to clean it.



Chapter 6 Transportation and Storage

6.1 Transportation

If the machine and corresponding accessories need to be lifted, it is recommended that you put them on a pallet and then lift them up with a forklift. Clean water and sewage must be drained when transporting the machine.

During transportation, in order to prevent various situations from slipping and damage caused by collisions, it is necessary to ensure that the binding is firm, the center of gravity is stable, and the driving safety is ensured. For the transportation vehicles that are in contact with the surface, the surface should be installed with soft pads or hard cardboard packaging. Load and unload lightly, and it is strictly prohibited to drop, hit, roll, press heavily, or put the machine upside down.

6.2 Storage

Before storing the machine, clean it. For details, see [**Chapter 5.1 Cleaning**].

For machines that will not work in a long time, anti-rust treatment should be done before storage, check the easily corroded parts of the machine, and apply butter.

If the machine will not be used within 15 days, store the machine fully charged in a clean, dry, and away from flammable places.

If the device is not used for a long time, first fully charge the device battery, disconnect the battery connector, and store it at room temperature above 0 degrees. Keep the battery and ask for replenishment once a month.

In areas with lower temperatures, clean water and sewage need to be drained to prevent the water tanks from cracking due to freezing of clean water or sewage.

Chapter 7 Common Problems

Problem	Phenomenon/Part	Troubleshooting method	Solution
Charging failure	Charging failure	If the charger is not connected to the machine, see whether the green light will be on. If the machine is plugged in, the red light is on, and the built-in fan of the charger does not run	Replace the charger
	Charging interface oxidation	Whether there is any obvious oxidation trace on the copper interface	Clean the charging interface oxide
Suction motor not working	Fuse	Check if the fuse is burnt	Replace the fuse
Brush plate motor not working	Fuse	Check if the fuse is burnt	Replace the fuse
Water not coming out	Clean water tube	Whether there is any scale in the transparent tube of the clean water tube	clean water tube
	Filter cover	Whether there is dirt on the filter cover	Clean filter cover
	Solenoid valve	Measure whether the solenoid valve has input voltage	Check the input voltage of the solenoid valve. If it is normal, remove it and clean the blocked part. Replace the solenoid valve if necessary.
Loud noise	Resonance of water absorbing rubber strips and sewage suction port	1. Is there any abnormal sound when the rubber strips are lifted? 2. Is there any obvious vibration in the water absorbing tube?	Adjust the height of the squeegee universal wheel
	Suction motor	1. Is there any abnormal sound when the rubber strips are lifted? 2. Is there still any abnormal sound after the water absorbing tube is pulled out?	Replace the suction motor
Brush plate	Frequent drop	Has the brush plate been lowered to the ground before turning on the switch?	This behavior is an incorrect operation and may easily cause the brush plate buckle to wear. Replace the buckle when necessary.
	Buckle wear	See the brush plate buckle for wear	Replace the brush plate buckle
The machine not sucking water properly	Floating ball cage clogged	Check whether there are two floating balls in the cage	Matters needing attention in daily use
	Tube blocked	Clean the water suction tube	Daily cleaning and maintenance
	Recovery tank sealing circle	Sealing circle aging	Replacement of accessories
	Water marks on the ground	1. Whether the strips are cracked, aged, or deformed 2. Whether the strips are wavy	Replacement of rubber strips
Machine not walking	Solenoid brake	Check whether the solenoid brake is on the downward gear when the machine is not powered on	Contact customer service center
	Accelerator	1. Short-circuit the accelerator connector. If the machine can move, there is something wrong with the accelerator pedal. 2. The fault lamp flashes 7 times.	
	Controller	Use a multimeter to measure whether the controller has input voltage	

Chapter 8 Technical parameters

Category	Single-brush K70	Double-brush K70
Cleaning width	500mm	700mm
Squeegee width	1000mm	1000mm
Continuous working time	2-3h	2-3h
Theoretical working efficiency	3650 ㎡/h	4000 ㎡/h
Battery capacity	24V/100Ah	24V/100Ah
Suction motor power	500W	500W
Brush plate motor power	550W	350*2W
Driving motor power	500	500W
Clean water capacity	80L	80L
Sewage capacity	85L	85L
Total weight	203.5kg	207.5kg
Working size	1300*1000*1100mm	1300*1000*1100 mm

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