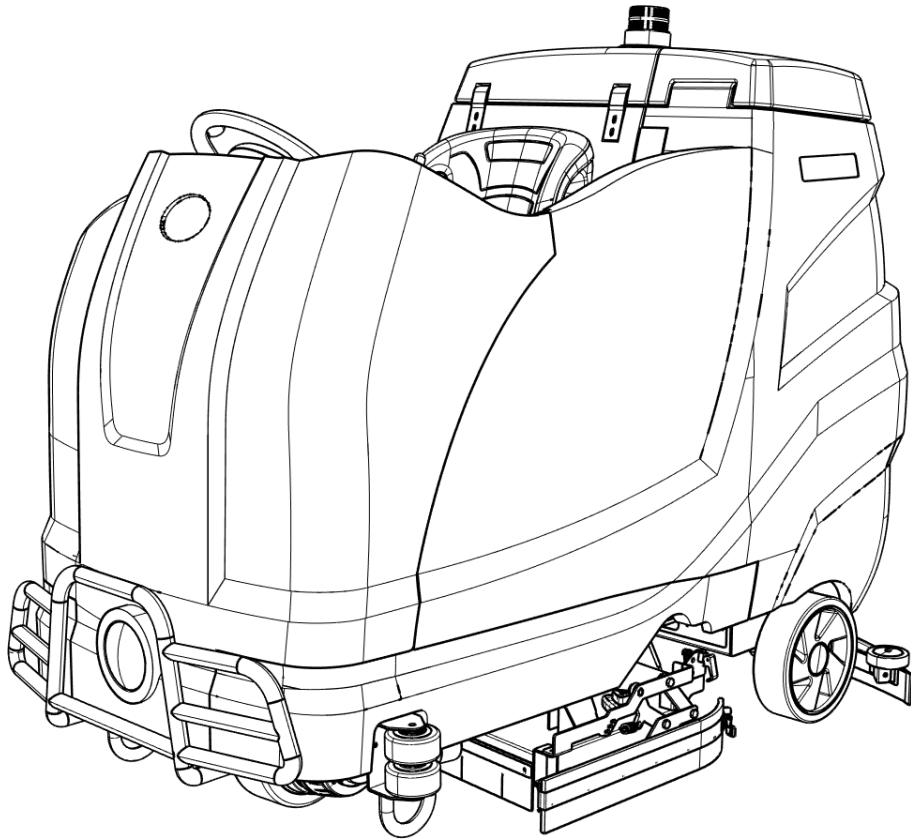


Ride on Floor Scrubber Operation Instructions

Model – K100



03/2024

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

Preface

Thank you for choosing Cleanplus cleaning equipment. We are confident in providing you with this product which is manufactured using the latest technology and has undergone strict quality control. This manual is used to help you understand the operation and maintenance of the equipment so that you can use it more comfortably and efficiently, so please read this manual thoroughly before using.

Safety Precautions

To ensure safety, please follow the following important usage rules!

1. Do not use this device while under the influence of alcohol or medication.
2. Before any maintenance and repair, please turn the machine OFF, and please remove the key from the main power switch and keep it properly.
3. This machine must be used by qualified and authorized personnel. Minors and disabled persons are not allowed to use it.
4. Keep batteries away from sparks, flames and smoke.
5. It is prohibited to use the machine in places with dangerous, flammable or explosive gases, liquids and water vapors.
6. No loose clothing or accessories are allowed. Keep clothing, gloves and hair away from moving parts.
7. Do not smoke while the battery is charging.
8. In case of fire, please use dry powder fire extinguisher, instead of water to extinguish the fire.
9. When a machine is scrapped, accessories containing hazardous substances (such as batteries, waste oil, etc.) shall be sent to a specific center for disposal.


Safe use

Safe use


1. Before using the equipment, please read this user manual carefully. This will ensure that you understand the control and maintenance requirements and help you use the equipment safely.
2. If the machine is handed over to other people, please be sure to hand over the instruction manual as well and tell them to read it carefully before use.


When reading this user manual,


1. This manual includes all configurations for this series of products, therefore, you may find that some of the information does not apply to your device.
2. All information, specifications and illustrations in this manual are effective when this manual is published. Our company reserves the right to change specifications or designs without prior notice.

In this manual, we use the symbol  with the word "**Warning**" to indicate the possibility of a hazard that may result in death or serious personal injury; in order to avoid or reduce the hazard, the relevant steps must

be strictly followed.

In this manual, we use the symbol  with the word "**Caution**" indicates the possibility of dangers that may cause minor or moderate personal injury or equipment damage; in order to avoid or reduce the danger, the relevant steps must be strictly followed.

() A mark similar to this indicates that the direction to which the arrow points is forward.

() An arrow similar to this indicates movement or action.

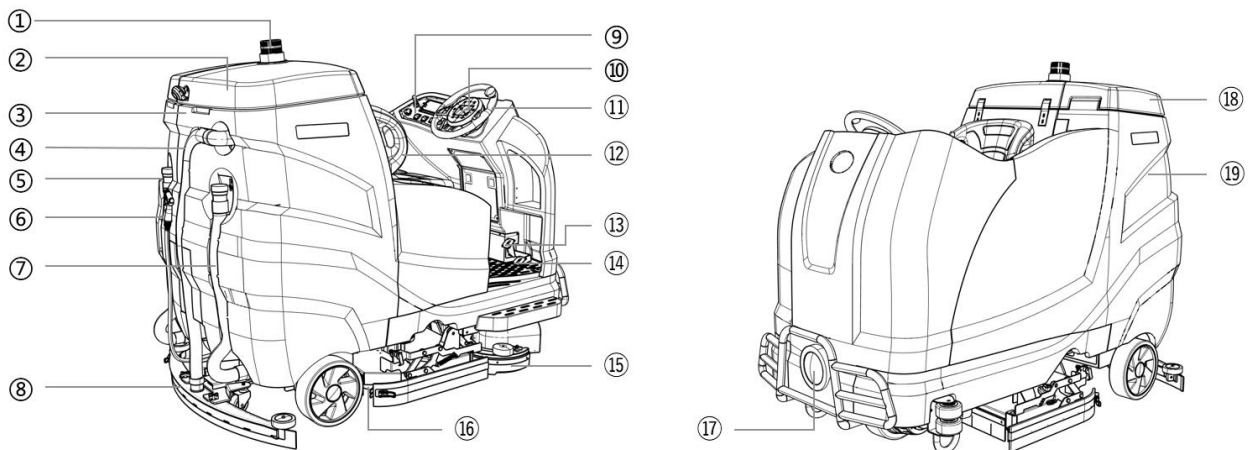
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Chapter 1 Product Introduction

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	Warning light	For warning
②	Recovery tank cover	Clean the recovery tank
③	Recovery tank	Store recycled sewage
④	Sewage suction tube	Suck ground sewage into the tank
⑤	Solution tank drain-pipe	Clear the water of solution tank
⑥	hydraulic giant	For flushing sewage tanks
⑦	Sewage draining tube	Discharge sewage from the recovery tank
⑧	Squeegee	Collect ground sewage
⑨	Control panel 1	Main function console
⑩	Control panel 2	Main function console
⑪	Steering wheel	Control driving direction
⑫	Seat	Machine driver's seat
⑬	brake pedal	emergency brake
⑭	Accelerator	Accelerate/ decelerate the machine

⑮	Side-brush module	Clean the position of wall, corner and other position
⑯	Brush plate	Clean the floor
⑰	Headlight	Lighting the environment
⑱	Solution tank cover	Observe the water tank and the water adding position of the water tank
⑲	Solution tank	Store clean water

1.3 Control Panel/Buttons



NO.	Name	Function
①	reversing camera	Display the rear image of the machine
②	Forward/backward	Control the machine to move forward/ backward
③	Emergency	Power off the entire vehicle in
④	Work light button	headlights are illuminated
⑤	Start / stop button of the gun	Turn on/off of the water gun
⑥	Start / stop button of the side brush	Turn on/off of the side brush
⑦	Key switch	Control the power-on and off of the machine
⑧	Horn	For whistling
⑨	Brush button	Turn on/off of the brush
⑩	Scrubbing+ Sewage suction	Start scrubbing+ Sewage suction simultaneously
⑪	Sewage suction	Start/stop sewage suction
⑫	ECO	Energy-saving mode
⑬	Water flow adjustment knob	Adjust the clean water flow
⑭	Speed adjustment	fast / slow mode
⑮	Brush pressure adjustment	Adjust the cleaning pressure
⑯	LED	Display the current voltage and power, fault information, and running status, etc

1.4 Technical parameters

Name	Value	Name	Value
Cleaning width (mm)	1000	Brush motor power (W)	650*2 200*1 (side brush)
Squeegee width (mm)	1200	Driving motor power (W)	1400
Continuous running hour (h)	3-4	Clean water capacity (L)	280
Theoretical working efficiency (m ² /h)	10000	Sewage capacity (L)	300
Battery capacity (V/Ah)	36/400(Refill liquid) 36/320 (No maintenance)	Total weight (kg)	977
Suction motor power (W)	600*2	Working size (mm)	2060*1200*1660

1.5 Accessories list

When you open the packaging box, you will find that it contains the following components. Please check the components listed in the table. If there are anything missing, please contact us in time.

No.	Name	Quantity
①	Host	1
②	Charger	1
③	Squeegee assembly	1
④	Tool kit	1
⑤	Operation instruction	1
⑥	Warranty card	1

1.6 Consumables and Optional Accessories

The consumables of this equipment are listed in the table below. When any of them is worn, you need to purchase or replace it;

This equipment can cope with different scenarios through different optional accessories, which you can purchase through suppliers or manufacturers.

Consumables	Optional Accessories
brushed dial, Absorbent rubber	Lithium battery, lead-acid maintenance-free battery

Chapter 2 Installation

2.1 Unloading

Caution:

Please remove the outer packaging carefully to avoid damaging the machine shell;

It is recommended to keep the packaging boxes of related products after receiving the goods, so that the machine can be repackaged later when the equipment is moved or returned or exchanged;

It is prohibited to violently unload the machine from the pallet 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

Step 1: Park the machine on level ground and take out the key;

Step 2: The Squeegee pick fixed screw through the tripod hole eye, use the plastic knob to tighten;

Step 3: The Squeegee pick fixed screw through the squeegee tail hole eye, use the plastic knob to tighten;

Step 4: Check the absorbent rubber strip and adjust it properly.




2.2.2 Connecting the battery cables

Step 1: Lift the seat and check whether the wire harness on the battery is connected and tightened;

Step 2: Connect the disconnected red pair plugs together. After connected, put down the seat (Note that the positive (+) port is red and the negative (-) port is black. After the connection is completed, put down the sewage tank.)



 **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.

Chapter 3 Inspection before use

3.1 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 about 31.5V or on red alert, please charge it in time.

⚠ Caution:

During the 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 below 31.5V and is not charged in time.



3.2 Check clean water level

⚠ Caution: 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.

3.3 Check sewage level

⚠ Caution:

Please pay attention to the sewage water level. When it reaches the float position of the sensor, the suction motor will stop working. Please discharge the sewage in time.

3.4 Check the wear of the rolling brush

Brush plate: Replace before it is worn to the height of the orange short hair mark in the figure.

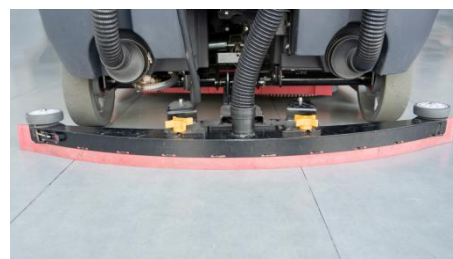


3.5 Check the wear of the rubber strips

Check whether the strips are damaged, deformed, aged or cracked. If so, please replace them in time.

⚠ Caution:

When the machine retreats, turn off the suction button and raise the squeegee to prevent deformation of the rubber strips and squeegee sheet metal parts.



Chapter 4 Operation instructions

4.1 Driving

Step 1: Turn on the main power key switch of the machine;

Step 2: Turn the forward/backward switch as needed, and lightly press the accelerator pedal to move the machine forward and backward;

Step 3: When the machine needs to stop, release the accelerator pedal and simultaneously step the brake pedal until the machine comes to a complete stop, flip the forward and backward switch to the middle position.



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.

4.2 Scrubbing

Step 1: Turn on the machine's main power key switch;

Step 2: Press the start button, the suction motor starts, the brush plate and the suction scraper automatically slowly down;

Step 3: Grip the steering wheel, gently step the accelerator pedal, the brush plate starts to rotate, keep the machine running smoothly can clean the floor (note: the speed should not be too fast when cleaning);

Step 4: Turn off the brush plate and suction after the ground is cleaned.



⚠ 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.

4.3 Discharging sewage

Step 1: Push the machine to a site that meets the sewage discharge standards, stop the machine, and turn off the power;

Step 2: 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.



⚠ Caution: When flushing the recovery tank, do not splash water into the suction port to prevent the suction motor from burning out.

4.4 Spray gun use

Step 1: Press the start button of the spray gun, the water pump starts to work, take out the water gun and can be used ;

Step 2: After finished, press stop button, release the left water in the pipeline, and put the water gun back to its original position.



4.5 Shutting down

Step 1: Empty water in both tanks;

Step 2: Drive the machine to a flat ground;

Step 3: Turn off the power switch and remove the key;



4.6 Charging

The correct way to charge 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 ;

· The power system of this floor scrubber is composed of 16 2V lithium battery (or 6 piece of 6V no maintenance battery) charge in series, and the system voltage is 36V;

· When the machine has been operating for a period of time, the battery power will drop. When the last two bars of the power meter are red, or the voltage is lower than 31.5V, 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;
- 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:

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 21V 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.

If the battery is filled with liquid, check the liquid level of the battery every 20 days and replenish the electrolyte in time

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

Step 1: Check and clean the wheel set and remove entangled objects;

Step 2: Clean the sewage tank and sewage tubes regularly, and use water to flush the dirt in the tank and blockages in the tubes;

Step 3: Clean the dirt under the rubber strips regularly, and wipe the strips with a cotton rag;

⚠ 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, keep the brush plate raised, turn off the key switch, and make sure that the machine is powered off;

Step 2: Open the water barrier of the brush plate, press the brush plate disassembly button, and remove the

brush plate;

Step 3: When installing the brush plate, ensure that the inner diameter of the brush plate is aligned with the magnetic ring, and lift the brush plate to a certain distance. After the magnetic ring catches the brush plate, the installation is complete.



⚠ Caution:

Baijie mat is divided into two kinds, different hardness, according to the difference of the site to choose the most suitable Baijie mat.

- Replacement of the dial: One can purchase the dial through our business platform. The specific operations are as follows: Put the Baijie mat at the bottom of the dial and make it firmly fit with the dial;
- The Baijie mat and the dial are fitted neatly. Dial is installed on the machine, and the installation procedure is the same as the brush plate;
- Before using the mat for the first time, soak it thoroughly in water for 10 to 15 minutes, dry mat will damage the ground.

5.2.2 Replacement and installation of rubber strips

Take down the squeegee module

Step 1: Park the machine on a flat ground, keep the squeegee raised, turn off the key switch, and make sure that the machine is powered off;

Step 2: Pull out the suction pipe

Step 3: After unscrewing the squeegee knob counterclockwise, take out the squeegee assembly;



Removing of rubber strips

Step 1: Pull up the lever of the rubber strip pressure plate, remove the plate, as well as the rubber strip behind the squeegee;

Step 2: Remove the cross hand screws at both ends of the absorbent grill, remove the bottom plate of the squeegee assembly, you can remove the front rubber strip of the squeegee.



Installation of rubber strips

Step 1: Align the holes of the front rubber strip with the protrusions of the component of the squeegee, and fix the plastic bottom plate to the bottom plate of the squeegee;

Step 2: Align the holes of the rear rubber strip with the protrusions of the component of the squeegee; install the rubber strip pressure plate and lock the buckle;

5.2.3 Squeegee adjustment

Step 1: Install the squeegee on the machine, press the absorbent button, turn off the power after the Squeegee is put down, and observe whether the Squeegee is parallel to the ground;

Step 2: If the Squeegee is not parallel to the ground, rotate adjustment knob of the tail swing on the Squeegee , adjust the squeegee to be parallel to the ground and the suction strip is in full contact with the ground.

Step 3: Adjust the height of universal wheel of tail swing , so that it is 2-5mm higher than the bottom of the rubber strip and both sides are equal height;

Step 4: If the Squeegee is found to be tilted during washing process, continue to adjust it according to the above method.



Chapter 6 Transportation and Storage

6.1 Transportation

If the machine and the accessories need to be lifted, it is recommended that you put them on a pallet and lift them with a forklift. And water in both tanks must be emptied when transporting the machine;

In order to prevent slipping and damage caused by collisions during transportation, please ensure that the binding should be firm and the center of gravity should be stable to ensure safety. For transportation vehicles whose surfaces are in contact with the machine, both surfaces should be packed with soft pads or hard cardboard;

Lightly load and unload. Do not let the machine fall, roll, be pressed, etc. or turned upside down.

6.2 Storage

Before storing the machine, clean the machine, see [Chapter 5, 5.1 Cleaning] for details;

For machines that will not be used for a long time, anti-rust treatment should be done before storage. Check the easily corroded parts, and apply butter;

If the machine will not be used within 7 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, fully charge the device battery, then disconnect the battery connector, and store the battery at room temperature above 0 degrees. It is required to charge it once a month;

In areas with lower temperatures, clean water and sewage need to be emptied to prevent the water tank from cracking due to water freezing.

Chapter 7 Common faults

Fault	Phenomenon/Part	Troubleshooting	Solution
Charging failure	Charger 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	Switch	Turn on the switch and check if the switch light is on	Replace the switch
	Connector	Check whether the connector is tightly inserted or has fallen off	Tighten the connector
	Controller	Check whether the controller screws and terminals are tight	Contact customer service center
	Suction motor	Use a multimeter to measure whether there is voltage at the input end of the suction motor	
Brush motor not working	Switch	Turn on the switch and check if the switch light is on	Replace the switch
	Connector	Check whether the connector is tightly inserted or has fallen off	Tighten the connector
	Controller	Check whether the controller screws and terminals are tight	Contact customer service center
	Brush motor	Use a multimeter to measure whether there is voltage at the input end of the brush motor	
Water not coming out	Clean water tube	Whether there is any scale in the transparent tube of the clean water tube	Clean clean water tube
	Filter	Whether there is dirt on the filter	Clean filter
	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 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 mecanum wheels
	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.

	Worn brush plate buckle	Observe the wear	Replace the brush plate buckle
The machine not sucking water properly	Floating ball cage clogged	Check the floating balls in the cage	Need extra attention in daily use
	Tube blocked	Clean the water suction tube	Need daily cleaning and maintenance
	Recovery tank sealing circle	Sealing circle aging	Replace accessories
	Squeegee	1. Whether the strips are cracked, aged or deformed 2. Whether the strips are wavy	1. Adjust the angle of the squeegee and the height of the universal wheel of the squeegee; 2. Replace the rubber strips
Machine not walking	Solenoid brake	Check the solenoid brake gear when the machine is turned off to see if it is not the downward gear	Contact customer service center
	Accelerator pedal	1. Shortly connect the accelerator pedal connector plug. If the machine can move, there is something wrong with the accelerator pedal. 2. The fault light flashes 7 times.	
	Controller	Use a multimeter to measure whether there is input voltage to the controller	
	Driving axle	Use a multimeter to measure whether there is input voltage to the driving axle	

Warranty Card

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