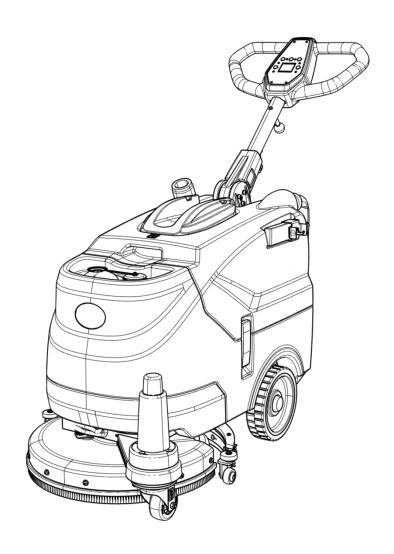


M30+

Hand-push Floor Scrubber

Operation Instructions





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 (\(\frac{1}{2} \)) 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 (\triangle) 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 (\leftarrow \checkmark) indicates that the arrow points in the direction of the equipment's forward direction.

An arrow similar to this ($\triangleleft \gt$)indicates movement or action.

Contents

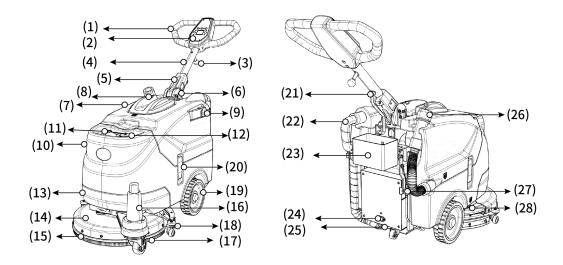
Chapter 1 Product Introduction	1 -
1.1 Applicable scenarios	1 -
1.2 Device overview	1 -
1.3 Controlling panel and buttons.	2 -
1.4 List of accessories	2 -
1.5 Consumables and optional accessories	2 -
Chapter 2 Install	3 -
2.1 Unload	
2.2 Installation	3 -
2.2.1 Installing the Storage Compartment	3 -
2.2.2 Connecting the battery cable	3 -
Chapter 3 Inspection and Adjustment Before Use	
3.1 Checking the battery level	
3.2 Check clean water level	
3.3 Check sewage level	4 -
3.4 Check the wear of the brush plate	
3.5 Check the wear of the rubber strips	5 -
Chapter 4 Operating Instructions	
4.1 Preparation before use	
4.2 Scrubbing	
4.3 Discharging sewage	6 -
4.4 Shutting down	6 -
4.5 Charge	6 -
Chapter 5 Cleaning and maintenance	7 -
5.1 Cleaning	7 -
5.2 Maintenance	
5.2.1 Replacement and installation of brush plate	
5.2.2 Replacement of absorbent rubber strip	8 -
5.2.3 Installation of absorbent rubber strip	
5.2.4 Adjustment of absorbent rubber strip	9 -
Chapter 6 Transportation and Storage	
6.1 Transportation	
6.2 Storage	10 -
Chapter 7 Common Issues	11 -
Chapter 8 Technical parameters	12 -

Chapter 1 Product Introduction

1.1 Applicable scenarios

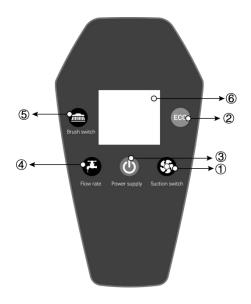
This equipment can be used in a variety of scenarios, suitable for commercial and industrial use, such as hotels, schools, hospitals, factories, supermarkets, office buildings, etc.; for epoxy floors, PVC floors, terrazzo, wear-resistant floors, tile cement floors, wooden floors, etc. Floors, rubber floors, can be used to clean different floors according to the brushes of different materials, and there are various choices.

1.2 Device overview



N0.	Name	N0.	Name	N0.	Name	N0.	Name
(1)	Steering Wheel (8) Waste Water Tank Lid		(15)	Water Barrier	(22)	Suction Hose	
(2)	Control Panel (9) Optional Cl		Optional Clip	(16)	Lifting Wheel Mechanism	(23)	Storage Compartment
(3)	Steering Wheel Release Handle	(10)	Clean Water Tank	(17)	Brush Disc	(24)	Charging Port
(4)	(4) Aluminum Rod (11)		Clean Water Tank Lid	(18)	Squeegee	(25)	Solenoid Valve
(5)	5) Aluminum Sleeve (12)		Telescopic Pipe Cover	(19)	Molded Wheel	(26)	Drain Pipe
(6)	Aluminum Base	(13)	Lower Decorative Panel	(20)	Tank Buckle	(27)	Lifting Handle
(7)	Waste Water Tank	(14)	Brush Cover	(21)	Rubber Plug	(28)	Drain Outlet Cover

1.3 Controlling panel and buttons.



N0.	Name	Function
1	Suction switch	Suction Start/Stop
2	ECO	ECO Mode
3	Power supply	Power On/Off
4	Flow rate	Clean Water Flow Adjustment
(5)	Brush switch	Brush Operation Start/Stop
6	Display	Display Operating Status

1.4 List 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	Function
1	Main Unit	1
2	Charger Cable	1
3	Storage Compartment Kit	1
4	Basic Tool Kit	1
5	User Manual	1
6	Warranty Card	1

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 accessories
Needle Plate	Needle Plate
Brush Disc	Cleaning pad (red)
Squeegee Rubber Strip	Cleaning pad (white)
Cleaning pad (red)	Lithium-ion Battery Pack
Cleaning pad (white)	Maintenance-Free Lead-Acid Battery

Chapter 2 Install

2.1 Unload

- ▼ Carefully remove the outer packaging to avoid damaging the machine casing.
- ▼ Retain the product packaging after delivery for future relocation, returns, or exchanges.
- ▼ Do not forcibly unload the machine from the pallet to prevent component damage.
- ▼ Secure the unloading pallet, remove the large wheel securing blocks, and slowly reverse the equipment off the pallet.

2.2 Installation

2.2.1 Installing the Storage Compartment

- **▼Step1:** Park the machine on a flat surface;
- ▼ Step2: Remove the storage box and screws from the attachment packaging;
- ▼ Step3: Place the storage box in place and use tools to install screws to complete the installation;



2.2.2 Connecting the battery cable

- **Step1:** Unlock the water tank buckle, remove the sewage tank and accessories;
- **Step2:** Connect the disconnected battery wires in series, with the positive (+) port marked in red and the negative (-) port marked in black. After connecting, reinstall the sewage tank and accessories.





Due to differences in logistics distance, the battery cable has been disconnected at the factory to avoid battery depletion during longer journeys.

Chapter 3 Inspection and Adjustment Before Use

3.1 Checking the battery level

After turning on the key switch, the battery gauge displays the current voltage of the battery. When the voltage is below 22V, please charge it in time.

▼ During the use of batteries, deep discharge can lead to a decrease in battery capacity and a shortened lifespan. For example, frequently using below 22V and not charging in a timely manner

3.2 Check clean water level

!Warning:

▼ Observe the water level height of the clean water tank directly through the inlet to ensure sufficient water volume and avoid using the suction motor in a dry state. Otherwise, there is a possibility that the suction motor may suck in dust. Severe cases can cause the noise of the suction motor to increase or the suction force to weaken.



3.3 Check sewage level

When the sewage warning light on the panel lights up and alarms, please immediately discharge the sewage.

Marning:

▼ Please pay attention to the sewage level in the sewage tank at all times. When the sewage level is too high and the float is pressed against the upper part of the float cage, an alarm will sound. Please promptly dump the sewage. When the water level is too high, the suction motor will stop working.

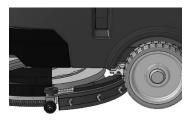
3.4 Check the wear of the brush plate

Place the brush disc on the ground. If the length of the brush on the brush disc is less than 1.5cm, please replace the brush disc in a timely manner. Please refer to Chapter 5.2.1 Brush Disc Replacement and Installation for details.



3.5 Check the wear of the rubber strips

▼ Check whether the absorbent strip is damaged, deformed, aged, or cracked. If any of the above conditions are found, please replace it in a timely manner. Please refer to Chapter 5.2.2 "Replacement and Installation of Absorbent Strip" for details.



/ Warning:

When the machine is moving backwards, be sure to raise the suction cup to prevent deformation of the suction rubber strip and suction cup sheet metal parts.

Chapter 4 Operating Instructions

4.1 Preparation before use

- ▼ Adjust the machine to a suitable position for use by unlocking the handle through the steering wheel;
- ▼ Check if the brush disc is grounded. If the brush disc is not grounded, check the status of the lifting wheel. By pressing the steering wheel handle, the lifting wheel will work until the brush disc is grounded;
- ▼ Check the status of the water suction scraper. If the water suction scraper is not grounded, check the status of the rear water suction scraper lifting handle. By releasing the water suction scraper lifting handle, make the water suction scraper grounded.

When the machine needs to be moved backwards or not working, the brush disc and suction scraper need to be lifted off the ground to avoid wear on the brush disc, deformation of the suction rubber strip or suction scraper sheet metal parts.



4.2 Scrubbing

- ▼① Ensure the brush and water scraper are in a ground contact working position (level contact with the ground), then turn on the machine's main power switch;
- ▼② Press the 'Brush' and 'Suction' buttons to turn on the brush and suction functions;
- ▼③ Hold the steering wheel tightly and keep the machine steady to start cleaning; a slight push will make it move forward;

▼ ④ During operation, press the 'Water Flow Adjustment' button to adjust the water flow. For energy-saving mode, press the 'ECO' button.

/ Warning:

Please avoid leaving the machine stationary in the same place for extended periods, as this can leave unnecessary marks on the ground.

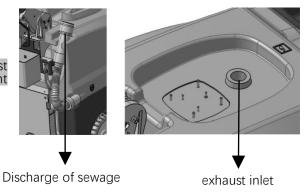
4.3 Discharging sewage

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.

Warning:

While flushing the wastewater tank, you must not splash water into the air intake to prevent the exhaust fan from burning out.



4.4 Shutting down

- 1. When the machine is not in use, empty the recovery tank.
- 2. Drive the machine to the parking site.
- 3.Turn off all switches on the machine control panel.
- 4. Raise the brush plate and squeegee.

/!\Warning:

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 Charge

- ▼ Correct charging method for battery: first plug in the battery, then plug in the mains power; After being fully charged, first disconnect the mains power, and then unplug the battery plug;
- ▼ The power system of this floor scrubber is powered by two 12V maintenance free lead-acid batteries connected in series or a whole 24V lithium battery, with a system voltage of 24V;
- ▼ After the machine has been operating for a period of time, the battery level decreases. When the voltage displayed on the battery level gauge is below 22V, it indicates that the battery level is insufficient and needs to be charged in a timely manner;
- ▼ When maintaining the battery, please wear protective gloves to avoid contact with acidic substances in the battery;

- ▼ Check if the battery connection wires are worn and if the contacts are loose, and replace them if necessary;
- ▼ The battery terminals should be kept clean and dry, without any debris or dust covering them, otherwise it will be extremely detrimental to the battery, and in severe cases, it may burn the battery;
- ▼ In order to ensure that the battery has a long service life, it should be charged promptly after the machine is operated, and deep discharge is strictly prohibited;
- ▼ When the machine is not in use for more than 15 days, please fully charge the battery and disconnect the battery connection wire for storage.

/ Warning:

During the use of batteries, deep discharge can lead to a decrease in battery capacity and a shortened lifespan. For example, it is often used below 22V and not charged in a timely manner. If the machine is not used for a long time, it needs to be fully charged in advance, and as shown in the figure below, the connecting wire on the battery should be cut off and wrapped with insulating tape to prevent the battery from losing power due to long-term disuse.



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.

- lack 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.

/ Warning:

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

Park the machine on a flat surface, use the lifting wheel to lift the brush disc off the ground, turn off the main power switch, and ensure that the machine is in a power-off state;

Step1: Rotate the brush disc left and right quickly by reverse hand, and the brush disc can be removed:

Step2: When installing the brush disc, ensure that the opening of the brush disc is aligned with the brush disc buckle, lift it up to the entry slot, and rotate it left and right until it is locked to complete the installation.

Step3: Needle disk replacement: Needle disk replacement: Needle disks can be purchased through our business platform.

- ▼ The specific replacement is to place the scouring pad at the bottom of the needle disk and make it firmly attached to the needle disk;
- ▼ The cleaning pad and needle plate are neatly matched, and the needle plate is installed on the machine with the same installation steps as the brush plate;
- ▼ Before the first use of the scouring pad, be sure to soak it thoroughly in water for 10-15 minutes. Dry scouring pads can damage the ground.

/ Warning:

There are three types of scouring pads with different hardness. Choose the most suitable scouring pad according to the site.







5.2.2 Replacement of absorbent rubber strip

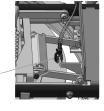
Step1: Park the machine on a flat surface, turn off the main power switch, ensure that the machine is in a power-off state, and lower the suction scraper lifting handle;

Step2: Use tools to sequentially remove the sewage tank, accessories, and other components, and take out the suction scraper assembly;











(Figure 1)

(Figure 2)

(Figure 3)

(Figure 4)

(Figure 5)

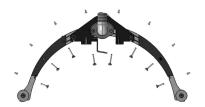
- ▼ Release the water tank buckle and remove the sewage tank and accessories.(Figure 1)
- ▼ Release the plug and remove the battery (Figure2)
- ▼ Loosen the suspension bolt on the suction rope and the fixing bolt of the water tank, and move the water tank. (Figure 3)
- ▼ Unlock the Y-shaped buckle at the bottom of the water absorbing scraper.(Figure 4)

▼ Use tools to unlock the installation bolts of the suction scraper.(Figure 5)

Step3: Remove the water absorbing rubber strip;

- ▼ Unscrew the water absorbing pickpocket nut and remove the carriage screw;
- ▼ Remove the front and rear rubber strip pressure plates;
- ▼ Remove the front and rear rubber strips of the water absorbing scraper.

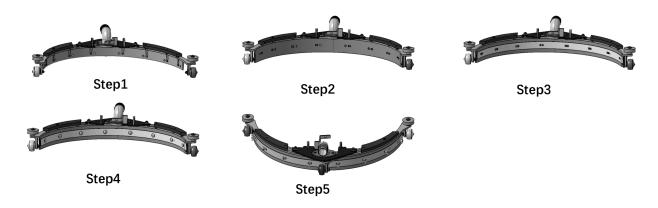






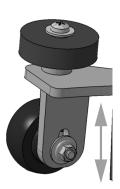
5.2.3 Installation of absorbent rubber strip

- ▼ Align the front rubber strip hole with the protrusion of the water absorbing plastic component (the front rubber strip has U-shaped holes on both sides of the rubber strip).
- ▼ Align the rear rubber strip hole with the protrusion of the absorbent plastic component.
- ▼ Install the rubber strip pressure plate and tighten the nut by hand.



5.2.4 Adjustment of absorbent rubber strip

- ▼ Put down the water absorbing scraper component and observe whether the adhesive strip can stick to the ground;
- ▼ Push the machine to check if the absorbent strip is slightly bent and not leaking;
- lacksquare The default position of the three small roller components is the lowest position;
- ▼ The rubber strip is too close to the ground or there is a gap between them, which can be balanced by three small roller components.
- ▼As the rubber strip wears out, the three small rollers gradually adjust upwards synchronously to reach a usable state
- ▼ The initial state of the small roller is at the lowest position



Chapter 6 Transportation and Storage

6.1 Transportation

- ▼ If the machine and its corresponding accessories need to be lifted, it is recommended to place them on a pallet and lift them with a forklift. The machine must be drained of all clean water and wastewater during transportation.
- ▼To prevent damage caused by slipping or collisions during transportation, ensure the machine is securely tied down, with a stable center of gravity, and ensure safe travel. Soft pads or hard cardboard packaging should be installed on surfaces that come into contact with the transport tools.
- ▼ Handle the machine gently when loading and unloading; avoid dropping, bumping, hitting, overturning, heavy pressure, or upside-down placement.

6.2 Storage

- ▼ Clean the machine thoroughly before storing it, as detailed in [Chapter 5.1 Cleaning].
- ▼ For machines that will not be used for an extended period, perform anti-corrosion treatment before storing them. Check the machine's corrosion-prone areas and apply grease.
- ightharpoonup If the machine will not be used for 15 days, fully charge it and store it in a clean, dry place away from flammable materials.
- ▼ For long-term storage, first fully charge the battery, disconnect the battery terminals, and store the battery at room temperature above 0 degrees Celsius. Ensure the battery is topped up once a month.
- ightharpoonup In colder regions, drain all clean water and wastewater to prevent the water tank from cracking due to freezing;

Chapter 7 Common Issues

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
	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
Water not coming out	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	Is there any abnormal sound when the rubber strips are lifted? 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	Floating ball cage clogged	Check whether there are two floating balls in the cage	Matters needing attention in daily use
water properly	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	 Whether the strips are cracked, aged, or deformed Whether the strips are wavy 	Replacement of rubber strips	
Machine not walking	Check whether the solenoid brake is on the downward gear when the machine i not powered on			
	Accelerator	Short-circuit the accelerator connector. If the machine can move, there is something wrong with the accelerator pedal. The fault lamp flashes 7 times.	Contact customer service center	
	Controller	Use a multimeter to measure whether the controller has input voltage		

Chapter 8 Technical parameters

Category	parameter
Cleaning width	450 mm
Squeegee width	600 mm
Continuous working time	1.5-3 h
Theoretical working efficiency	2000 ㎡/h
Battery capacity	24V/63Ah
Suction motor power	350 W
Brush plate motor power	360 W
Driving motor power	/
Clean water capacity	25 L
Sewage capacity	33 L
Total weight	100 kg
Working size	1253*605*1056 mm

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

