

M56+

Hand-push 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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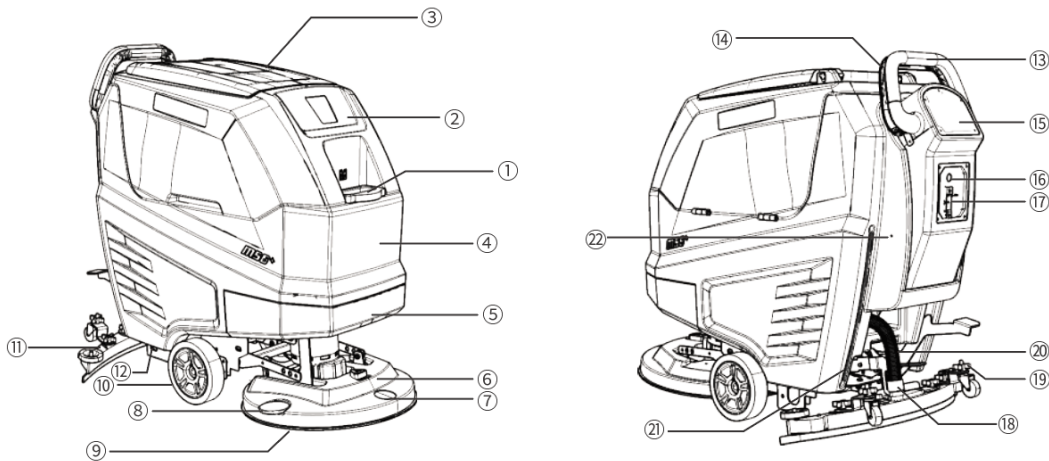
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Chapter 1 Product Introduction

1.1 Applicable scenarios

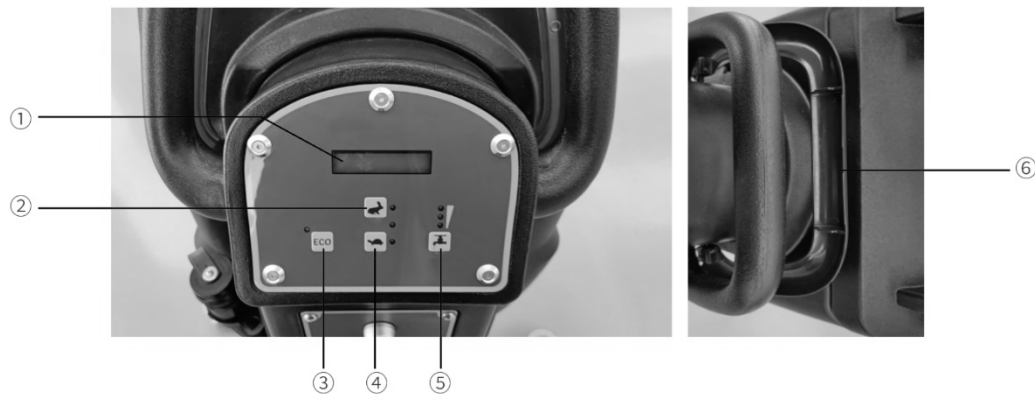
This equipment can be used in a variety of scenarios, including commercial and industrial places, such as hotels, schools, hospitals, industrial offices, supermarkets, office buildings, etc.; for epoxy floors, PVC floors, terrazzo, wear-resistant floors, tiles and cement floors, wooden floors, rubber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

1.2 Equipment Overview



NO.	Name	Function
①	Solution tank cover	Prevent foreign objects from falling into the solution tank
②	Recovery tank	Hold collected sewage
③	Recovery tank cover	Injection molded cover to seal the recovery tank
④	Solution tank	Store clean water
⑤	Baffle	Prevent water from entering the brush plate motor
⑥	Brush plate removal buckle	Remove the brush plate
⑦	Brush plate cover	Protect the injection molded brush plate case
⑧	Anti-collision wheel	Prevent collision damage to the machine
⑨	Brush plate	Clean the floor
⑩	Driving wheel	Main wheel, for driving the machine
⑪	Squeegee	Collect ground sewage
⑫	Solution tank draining port	Quickly drain clean water from the solution tank
⑬	Handle	Control the machine's direction
⑭	Toggle switch	Start and stop the machine
⑮	Panel	Carrier for circuit boards and voltage monitors
⑯	Key switch	Control the machine's power on and off
⑰	Charging port	Charger plug interface
⑱	Brush plate lifting and lowering pedal	Pedal to lift and lower the brush plate
⑲	Squeegee lifting and lowering pedal	Pedal to lift and lower the squeegee
⑳	Sewage suction tube	Collect ground sewage into the recovery tank
㉑	Water level gauge	Display the remaining water in the solution tank

1.3 Controlling panel and buttons.



NO.	Name	Function
①	Electricity meter	Display the current voltage of the machine
②	Acceleration button	Make the machine move faster
③	ECO switch	Energy-saving mode
④	Deceleration button	Make the machine move slower
⑤	Water volume adjustment switch	Adjust the amount of clean water output
⑥	Lever	Control the moving power of the machine

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.

NO.	Name	Function
①	Host	1
②	Charger	1
③	Squeegee assembly	1
④	Tool kit	1
⑤	Operation instructions	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
Pad holder	Pad holder
Brush plate	Cleaning pad (red)
Rubber strip	Cleaning pad (white)
Cleaning pad (red)	Lithium battery
Cleaning pad (white)	Lead-acid maintenance-free battery

Chapter 2 Installation

2.1 Installing the squeegee

Caution

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.

Please remove the pallet backwards.

2.2 Installation

2.2.1 Squeegee installation

Step 1: Park the machine on a flat ground.

Step 2: Step on the fixed components of the water suction scoop and lower the water suction scoop.

Step 3: Align the squeegee with the hole and install it on the swing tail, then tighten the cross knobs of the squeegee.

Step 4: Insert the other end of the suction tube into the suction port of the squeegee to complete the installation.



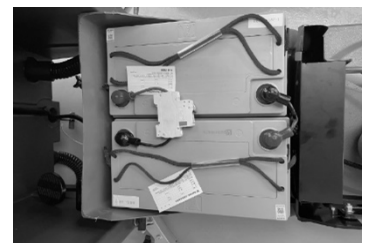
2.2.2 Connecting the battery cables.

Caution

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

Step 1: Open the seat to 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 seat.



Chapter 3 Inspection and adjustment before use

3.1 Check the battery.

After turning on the power switch, the meter will display the battery voltage. When the value is lower than 32V, please charge it first.

⚠ Caution

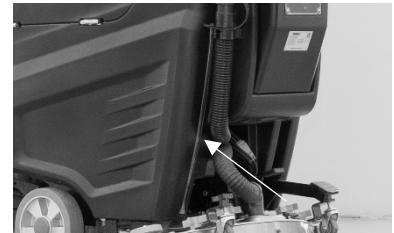
During the use of the battery, deep discharge will cause the battery capacity to decrease and its life to be shortened. For example: the battery is often used below 21.6V and is not charged in time.



3.2 Check clean water level

⚠ Caution

Please make sure 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. 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

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

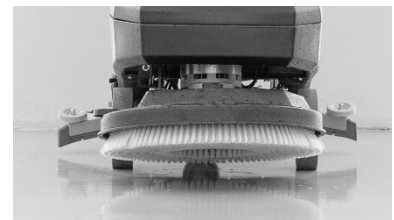
⚠ Caution

Please always pay attention to the sewage water level in the recovery tank. When the sewage warning light on the panel lights up, please discharge the sewage in time. At the same time, the tank is equipped with a water level sensing device. When the water level is too high, the suction motor will stop working.



3.4 Check the wear of the brush plate.

Put the brush plate on the ground. If the bristle length is close to 1.5cm, please replace the brush plate in time. For details, see [Chapter 5 5.2.1 Brush Disk Replacement and Installation]

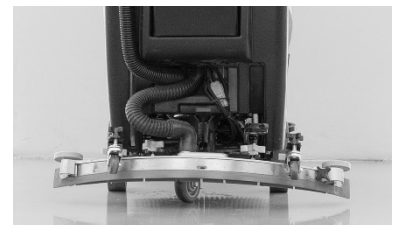


3.5 Check the wear of the rubber strips.

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].

⚠ Caution

When the machine moves backward, you shall raise the squeegee to prevent deformation of the 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: Press and hold the lever switch to move the machine.

Step 3: When the machine needs to stop, release the lever 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.



Turn on the key switch.



Hold the lever switch.

4.2 Scrubbing

Step 1: Turn on the water valve switch.

Step 2: Turn on the main power key switch.

Step 3: Step on the lifting and lowering pedal to lower the brush plate.

Step 4: Step on the lifting and lowering pedal to lower the squeegee.

Step 5: Turn the forward lever to start cleaning.

⚠ 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.



Step 1



Step 2



Step 3



Step 4



Step 5

4.3 Discharging sewage

Step 1: Drive 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 motor from burning out.



Turn off the power.



Draining tube



Discharge sewage

4.4 Shutting down.

Step 1: When the machine is not in use, empty the water tanks.

Step 2: Drive the machine to the parking site.

Step 3: Turn off the main power switch and remove the key.

Step 4: Press the squeegee and brush plate lifting pedal to raise the squeegee and brush plate.



Empty the recovery



Empty the solution



Turn off the power; lift the brush plate and squeegee.

4.5 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 2 12V maintenance-free lead-acid or liquid-filled 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 21V, 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.

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 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

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.

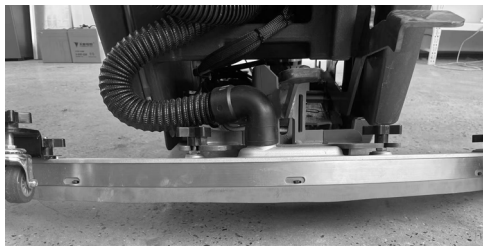
Step 4: Check the water filter regularly. When there are impurities in the transparent cover, rotate and unscrew the cover, and rinse it and the filter screen repeatedly with clean water.

⚠ Caution

The machine is a non-tight waterproof device, do not directly flush the machine with a water hose, this behavior may cause a short circuit in your machine wiring, or the electrical components are burned.



Clean the recovery tank.



Clean the rubber strips.



Clean the filter.

5.2 Maintenance

5.2.1 Replacement and installation of brush plate

Step 1: Park the machine on a flat ground, lift the brush plate, turn off the main power switch, and ensure that the machine is in a power-off state.

Step 2: Press the brush plate downwards to remove it.

Step 3: When installing the brush plate, make sure that the inner diameter is aligned with the magnetic iron ring, lift it upward to a certain distance, and the magnetic iron ring will attract the brush plate to complete the installation.

⚠ Caution

There are 2 types of cleaning pads with different hardness. Choose the more suitable one according to the site.

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;

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.



Turn off the power.



Remove & Install brush plate.



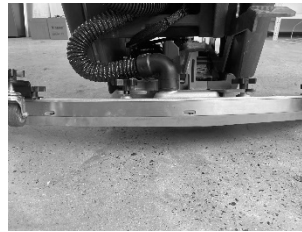
Install pad holder and cleaning pad.

5.2.2 Replacement and installation of rubber strips

Step 1: Park the machine on a flat surface, lift the squeegee and turn off the power; make sure that the machine is powered off.

Step 2: Choose the air suction mode, lower the squeegee to the ground and then turn off the power.

Step 3: after rotating the plastic knob in the opposite direction, take out the squeegee assembly.



Lift the squeegee.



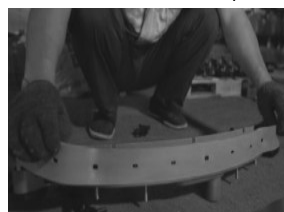
Remove the squeegee.

Step 4: Remove squeegee rubber strips.

Unscrew the squeegee knobs to remove the universal wheel.

Pull up the lever of the rubber strip pressure plate and remove the plate.

Remove the bottom plate of the squeegee assembly and remove the front and rear rubber strips.



5.2.3 Installation of squeegee rubber strips

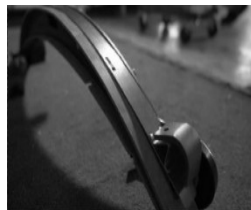
Step 1: Align the holes of the front rubber strip with the protrusions of the plastic component of the squeegee.

Step 2: Fix the plastic bottom plate on that of the squeegee and install the two black screws.

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

Step 4: Install the rubber strip pressure plate and lock the clasp.

Step 5: Tighten the nuts.



5.2.4 Adjustment of 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 the rubber strips are slightly bent and there are no leaks.

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.



Adjust the universal wheel upward.



Adjust the universal wheel downward.

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, 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 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	Parameters
Cleaning width	520mm
Squeegee width	825mm
Continuous working time	2-3h
Theoretical working efficiency	3600 m ² /h
Battery capacity	24V/100Ah
Suction motor power	450W
Brush plate motor power	650W
Driving motor power	150W
Clean water capacity	55L
Sewage capacity	65L
Total weight	165kg
Working size	1280*825*1080mm

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<h3>Warranty Card</h3>			
Name		Tell	
Postal address		Bill No.	
Purchase time		Number	
Product model		Date	
Replace accessories			
Fault description			

