Robeys
POWERKLEEN

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Micro 20"

Operating instruction manual



Please read this manual carefully before use

This manual provides necessary machine operation and maintenance instructions. Before operating or using this machine, please read and understand this manual carefully.

When ordering replacement parts, please refer to the spare parts manual that comes with the machine.

Before selecting parts or accessories, please confirm your machine model and serial number. You can order parts or accessories from manufacturers or distributors by phone or mail. This machine can provide excellent service. If we can further achieve the following points, we will be able to achieve the best results at the lowest cost:

- Handle the machine carefully
- Regularly maintain the machine according to the maintenance instructions provided in the operating manual.
- Repair using parts or grades manufactured by the original manufacturer.



Protect the environment. Please dispose of old machine sets such as packaging materials and batteries in accordance with your local waste disposal regulations, while maintaining environmental safety. Please make sure to do a good job in recycling.



Address: _____

TEL: _____

Website: **powerkleen.net**

Specifications and parts are subject to modification without prior notice.

Machine information:

Machine model: **Micro 20"**

Machine serial number: _____

Machine options: _____

Sales representative: _____

Sales representative phone number: _____

Customer ID: _____

Sales date: _____

CONTENTS

1. Attention 3
2. Receiving Machine 4
3. Machine Cleaning Method 5
4. Brush and Pad Information 5
5. Machine Installation 6
6. Machine Component Description 6
7. Machine Operation 8
8. Water Tank Drainage 9
9. Battery Charging 9
10. Machine Maintenance 10
11. Handling Machines 10
12. Storage Machines 11
13. Troubleshooting 11
14. Technical Parameters 12

1 Attention

This machine is suitable for industrial and commercial use, specifically for cleaning hard indoor floors, and is not used for other purposes. Please use all recommended cleaning pads and brushes, as well as commercially available floor cleaners suitable for this machine.
The following is an explanation of the safety warning symbols and safety concerns used in this manual.

⚠ **WARNING:** Used to warn of risks or unsafe operations that may cause serious personal injury or death.

For safety reasons: point out the precautions that must be followed during the use of this machine to ensure safety.
If the following warnings are not followed: it may cause personal injury, electric shock, fire or explosion.

⚠ **WARNING: Fire or explosion hazards:**

1: Do not use flammable liquids and do not operate the machine near or in areas with flammable liquids, gases, or dust.
2: This machine is not equipped with an explosion-proof motor. If using this machine in a place with flammable gases, liquids, or combustible dust: during start-up and operation, the electric motor will generate sparks, which may cause a flash fire or explosion.
3: Do not pick up flammable materials or active metals.
4: The battery releases hydrogen gas. Please stay away from sparks or open sources of ignition, and ensure that the battery compartment is open when charging.

⚠ **WARNING:** Electric shock hazard, please disconnect the battery connection wire before repairing the machine.

⚠ **WARNING:** Rotating brush operation, please do not approach with both hands, please turn off the power before repairing the machine.

The following information indicates situations that may pose potential hazards to operators or equipment:
For safety reasons:
1: Do not operate the machine:
① To remove flammable liquids or close to flammable gases, otherwise it may cause explosions or flash fires.
② Unless trained and you understand the operation manual.
2: Before starting the machine:
① Please ensure that all security settings are located and operated correctly.
3: When using the machine:
① When encountering slopes and slippery surfaces, please walk slowly.
② Wear non slip shoes.
③ Please slow down when turning.
④ Machine damage or operational failure should be reported immediately.
⑤ Do not let children play on the machine.
⑥ Follow the mixing ratio and handling instructions on the chemical container.

4: When leaving or repairing the machine:
① Park the machine on a stable surface.
② Turn off the power.
5: When repairing the machine:
① Avoid moving parts and do not wear loose tops, shirts, or sleeves.
② Before operating the machine, please disconnect the battery wiring.
③ When handling batteries or battery wiring, please wear protective gloves and eye protection equipment.
④ Avoid contact with battery liquid acid.
⑤ Please do not use high-pressure spraying or water pipes to flush this machine.
⑥ Use replacement parts provided or approved by the manufacturer.
⑦ All repairs must be carried out by qualified maintenance personnel.
⑧ Please do not modify the original design of the machine.
6: When handling machines:
① Please turn off the power.
② Do not move the machine with batteries installed.
③ Please handle the machine with the assistance of others.
④ When loading and unloading machines from trucks or trailers, please use the recommended loading and unloading level.
⑤ Use ropes to secure the machine to a truck or trailer.
⑥ Lower the brush head to the lowered position.

2 Receiving Machine

Unpacking the machine
1: Check the list of goods. If there are any omissions, please contact the seller.

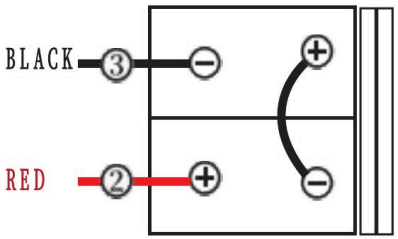
- Two 12V batteries - standard configuration
- One 24V battery charger - standard
- A set of battery connecting wires - standard configuration
- One set of absorbent rubber strips - standard configuration
- One floor brush - option
- One Pad Driver - option
- Other accessories - purchase separately

2: To open the machine package, please first remove the shipping fasteners and ropes that secure the machine to the warehouse. With the assistance of others, carefully unload the machine from the warehouse.
Attention: If the loading and unloading platform is not used, do not directly push the machine to avoid damage.
Attention: To avoid damage to the machine, please remove it from the warehouse before installing the battery.

Installing the battery:

> ⚠ **WARNING: Fire or explosion hazard,** hydrogen gas is released from the battery. Please stay away from sparks or open sources of ignition. The battery cap must be kept open when charging.

For safety reasons: When repairing the machine, please wear protective gloves and eye protection equipment when handling batteries and battery wiring. Avoid contact with battery liquid acid.
Park the machine on a level surface and remove the key.
Lift the sewage tank to expose the battery compartment.
Carefully install the battery inside the battery compartment door and connect the battery cable as shown in the diagram below.



Attention: Do not throw the battery into the battery compartment to avoid damage to the battery and machine.
4. Before connecting the battery, please make sure that the electrodes and terminals are clean. Use electrode cleaning solution and wire brush as needed. Note: Apply a thin layer of metal free lubricating oil or protective spray on the connected wiring to avoid battery corrosion. After installing the battery, please check the power scale on the battery meter and charge the battery as needed.

3 Machine cleaning method

Cleaning method: Manually control the water valve to adjust the amount of cleaning solution (water and cleaning agent) flowing to the ground. The brush uses a solution mixed with cleaning agent and water to clean the floor. While the machine is moving forward, it uses a suction scraper to suck the sewage on the floor into the sewage tank.

4 Brush and Pad Information

To ensure optimal efficiency, please use the brush type correctly for cleaning work. Suggested use of brushes and scouring pads as follows:
1. Soft nylon brush (white)
Suggested for cleaning coated flooring without damaging the floor, cleaning without leaving scratches.
2. White scouring pad polishing pad (also known as polishing pad)
Used to maintain highly shiny or polished floors.
3. Red scouring pad polishing pad (also known as buffer pad)
Used to scrub minor dirt without damaging the ground.
4. Black scouring pad polishing pad (also known as gravity folding pad)
Used for strong removal of heavy coatings or substrates, or for ultra strong scrubbing.

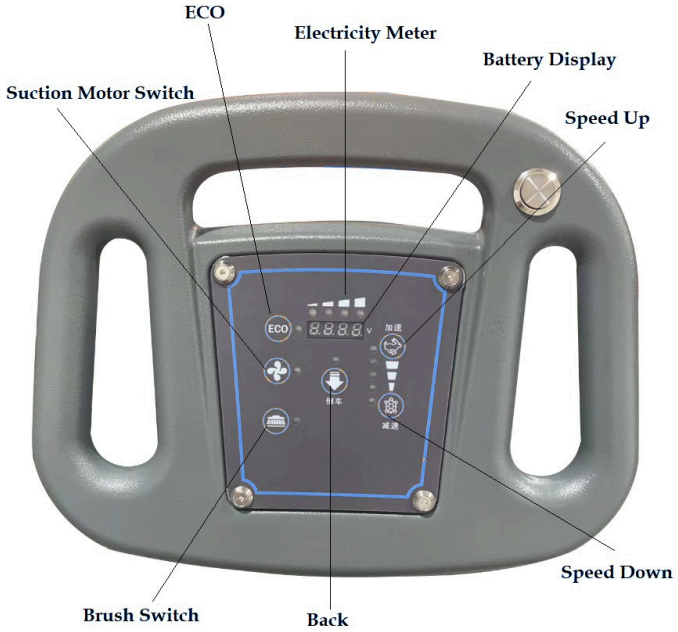
Micro 20" Operating Manual

5 Machine Installation

Install and connect the water suction scraper component
Park the machine on a level surface and remove the key.
Lower the lifting rod of the suction scraper to the lower position.
When installing the suction scraper onto the installation bracket, be sure to fully place the fastening knob in the socket before tightening the knob.
Connect the suction pipe to the suction scraper assembly.
Check the water absorbing rubber strip and make appropriate adjustments.
Install brushes/cleaning pads
Explanation:
Consult your local authorized dealer.
Park the machine on a level surface and remove the key.
Step on the lifting pedal of the scraper head to lift it off the ground.
Align the needle disk/brush mounting bolt with the motor drive disk buckle, and press the brush disk motor switch.
If you want to remove the needle disk and brush, step on the brush head lifting pedal to lift the brush head off the ground, and press the brush disk motor switch.

6 Machine Component Description

1. Walk-Behind Driven floor scrubber operation panel instructions



2. Machine Component Description



7 Machine operation

For safety reasons: Do not operate the machine until you have read and understood the operating manual.

> ⚠ **WARNING: Fire or explosion hazard.** Do not operate the machine near or in areas with flammable liquids, gases, or dust.

1. Pre operation inspection

Clean the dust on the ground.
Check the power scale of the battery meter.
Check the wear of the brush head skirt and the wear of the cleaning pad/brush. Check the wear of the water absorbing adhesive strip and adjust the angle appropriately.
Ensure that the sewage tank is empty and that a clean floating filter screen has been installed.

2. Operating the machine

Turn on the power switch of the machine.
Stepping on the pedal of the brush disc lift is to lower the suction head to the ground.
Pull down the lifting rod of the suction scraper to lower the components of the suction scraper head to the ground.
Turn on the water control knob.
Press the switch of the brush disk motor, then press the switch of the suction motor.
Start driving the machine for cleaning.
Explanation: It is recommended to use a cleaning speed of about 150-200 feet per minute.

3. During machine operation

> ⚠ **WARNING: Fire or explosion hazards,** do not pick up flammable materials or active metals. Each cleaning path overlaps by 2 inches to allow the machine to continue walking and avoid damaging the ground.

Do not operate the machine on slopes exceeding 5%.
For safety reasons: When using the machine, please move slowly on slopes and slippery floors.
If there is too much foam, it is recommended to use defoamer solution to pour it into the clean water tank.
Attention: Do not put foam into the filter screen to avoid damaging the vacuum motor. Foam will make the screen switch ineffective.
Use a dual cleaning method to clean extremely dirty areas. First, raise the water absorbing scraper for cleaning, let the solution soak for 3-5 minutes, then lower the water absorbing scraper and clean it again.
Replace or rotate the cleaning pad as needed.
Observe the power consumption of the battery.
Observe the remaining liquid level through the clear water tank level gauge. The traditional washing method requires a dosage of 2.6 gallons every 10 minutes.
When the solution in the clean water tank is used up, empty the dirty water tank first and then refill the solution.
When leaving the machine, please park the machine on a level ground and remove the key.
After cleaning, perform daily maintenance procedures.

4. Battery level meter

The battery meter will display the battery level, and all indicator lights will light up when the battery is fully charged. As the battery runs out, the indicator lights will turn off from right to left in sequence. To extend the battery life, do not let the indicator light turn off to zero.

Explanation: To extend the lifespan of the battery, please make sure to charge the battery after the total usage time of the machine exceeds 30 minutes.

8 Water Tank Drainage

After each use, the dirty water tank should be drained and cleaned. The clean water tank should be cleaned regularly to remove any corroded parts. Transport the machine to a drainage location, turn off the power, and follow the following steps:

1. Discharge sewage tank

Rotate counterclockwise to loosen the drain pipe cover of the sewage tank and remove it.

Open the cover of the sewage tank and flush the water tank.

Disassemble and flush the floating filter located in the sewage tank.

2. Discharge water tank

1: Turn on the drain switch and slowly drain the clean water.

9 Battery Charging

Attention: In order to extend the lifespan of the battery and ensure the optimal performance of the machine, it is necessary to charge the battery after at least 30 minutes of machine use. Do not leave the battery in an uncharged state for a long time. The following charging instructions apply to the charger included with this machine. Please make sure to use the following specifications of chargers to avoid battery damage.

Charger specifications:

Charger type - lead-acid battery charger

Output voltage - 24V

Output current - 15A

Automatically disconnect the circuit after charging saturation

Suitable for deep cycle battery charging

Move the machine to a well ventilated area for charging.

> ⚠ **WARNING: Fire or explosion hazards.** Charging the battery releases hydrogen gas. Please stay away from sparks or open sources of ignition. The battery compartment must be kept open during charging.

Park the machine on a level surface and turn the key to the off position.

For safety reasons: When repairing the machine, please wear protective gloves and eye protection equipment when handling batteries and battery wiring to avoid contact with battery liquid acid.

When charging, please open the sewage tank to facilitate ventilation.

Insert the AC power cord of the charger into a well grounded power outlet.

Insert the DC (AC) power cord of the charger into a well grounded battery charging socket. The charger will automatically start charging and will automatically turn off when fully charged.

> ⚠ **WARNING:** Do not open the battery compartment in case of fire or explosion.

10 Machine maintenance

As longasthe daily,weekly,andmonthlymaintenance procedures are followed, the machine can be maintained in optimal working condition.

> ⚠ **WARNING: Electric shock hazard,** please disconnect the battery connection wire before maintaining the machine.

1. Daily maintenance (after each use)

-Drain and clean the dirty water tank.

-Remove and flush the floating filter located in the sewage tank.

-Drain the clean water tank and clean it with hot water no higher than 140 degrees Fahrenheit as needed.

-Remove the cleaning pad and brush for cleaning. If there is wear, flip or replace the cleaning pad.

-Wipe the absorbent strip and raise it to prevent damage to the strip.

-Check the wear of the edges of the water absorbing adhesive strip. If there is any wear, swap the two ends of the adhesive strip.

-Use a multi-purpose cleaner and a damp cloth to wipe the machine. For safety reasons, do not use high-pressure spraying or water pipes to flush the machine when cleaning, to avoid causing electronic component malfunctions.

-Check the wear of the brush head and skirt, and replace it if there is any wear or damage.

-To extend the lifespan of the battery and ensure the optimal performance of the machine, it is necessary to charge the battery after at least 30 minutes of machine use.

2. Monthly maintenance

-Remove the clean water tank filter from under the machine and clean the filter screen, ensuring that the clean water tank is emptied before disassembling the filter.

-Clean the top of the battery to prevent electrode corrosion.

-Check if the battery connection wire is loose.

-Check and clean the sealing strip of the sewage tank cover. If there is any damage, replace it.

-Spray silicone dry lubricant on all pivot and rollers, and then cover with a layer of waterproof lubricating oil to maintain smooth operation of the wheel axles.

-Check if the nuts and bolts on the machine are loose. Check if the machine is leaking.

3. Quarterly maintenance

-Check the wear of the drive motor, vacuum motor, and brush motor every 250 hours. When the length of the carbon brush wears out by less than 0.4 inch, it needs to be replaced. If the machine needs to be repaired, please contact an authorized service center.

> ⚠ **WARNING: Electric shock hazard.** Please disconnect the battery connection wire before repairing the machine.

11 Handling Machines

When using a truck or trailertotransport a machine, be sure to follow the following bundling procedures

-Lift the brush head to the handling position.

-Use the recommended loading dock to load the machine.

-Place the front of the machine against the front of the truck or trailer, place the machine properly, lower the brush head, and turn off the power. Place obstacles behind each drive wheel to prevent the machine from slipping.

-Use ropes to secure the top of the machine to prevent tilting. You must install brackets on the truck or trailer.

For safety reasons: When handling the machine, please use the recommended loading and unloading platform to load and unload the machine from the truck or trailer, and fix the machine to the vehicle board with ropes.

12 Storage Machine

Please charge the battery before storage and do not store it when the battery is depleted.
-Thoroughly drain and flush the sink box inside the sink.
-Store the machine in a dry place and keep the brush head in the raised position.
-Open the cover of the sewage tank for ventilation. Attention: Do not let the machine be exposed to rain and store it indoors. If storing the machine in a cold environment, please ensure that all liquids inside the machine are drained.

13 Troubleshooting

PROBLEM	CAUSE	SOLUTION
Machine not working	Run out of battery	Battery charge
	Battery failure	Replacing the battery
	The battery cable is loose	Tighten the battery wiring
	Main fuse burnt out	Replace the fuse
Brushing disc motor not working	Brush head lifted off the ground	Lower the brush disc
	Battery meter locked and not started	Battery charge
	Brushing disc motor circuit breaker triggers power trip	Reset brush circuit breaker button
	Brush (up/down) switch failure	Please contact the service center
	Motor carbon brush wear	Please contact the service center
	Water absorption and lifting off the ground	Please contact the service center
Vacuum motor not working	Vacuum motor fuse burnt out	Lower the suction motor
	Vacuum motor or wiring malfunction	Replace the fuse
	Motor carbon brush wear	Please contact the service center
	Clear water tank filter or solution pipe clogged	Please contact the service center
A small amount or no water flows out	The flow rate setting of the water flow control knob is too low	Clean the tank filter
	Loosen the control knob screw	Adjust the water flow control knob
		Tighten the screw after lubricating the knob

Continued

Low water absorption efficiency	The sewage tank is full	Drain the sewage tank
	Wear of water absorbing rubber strip	Replace the water absorbing adhesive strip
	Blocked suction pipe	Eliminate clogged debris
	The sealing strip of the sewage tank is damaged	Replace seal
	Vacuum motor malfunction	Please contact the service center
Short operating time	The battery is defective	Replacing the battery
	Battery charging failure	Repair or replace the charger

14 Technical Parameters

Technical Parameter	UNIT	Micro 20"
Supply voltage	**V/Ah**	**24/100**
Brush motor	**W**	**550**
Water suction motor	**W**	**500**
Drive motor	**W**	**300**
Cleaning width	**in**	**19.7**
Squeegee width	**in**	**31.5**
Theoretical cleaning efficiency	**ft²/h**	**24,200**
Actual cleaning efficiency	**ft²/h**	**22,600**
Brushing speed	**rpm**	**220**
Solution capacity	**gal**	**11.9**
Recovery tank capacity	**gal**	**13.2**
Machine weight (including battery)	**lb**	**309**
Dimensions	**in**	**51.2 × 31.5 × 41.7**

About machine warranty instructions

ONE year warranty for the entire machine, excluding vulnerable and consumable parts (solenoid valve, power switch, suction pipe, sewage pipe, rubber strip, brush disc, needle disc, universal wheel of the machine body, scraper guide wheel, cleaning pad, fuse, suction scraper anti-collision wheel)

ONE year limited warranty period

Within one year from the date of purchase, for any components and electronic components found to have defects in materials and performance during sales inspections by our company, after checked by our technology team, if it is caused by quality problem, we will choose to repair or replace them free of charge for the original purchaser.

Exclusions from warranty

Without the prior explicit consent of our company, repairing or modifying any component of the floor scrubber without authorization is not covered by our company's warranty liability. Any damage caused by leakage, abuse, misuse, accident or negligence, incorrect operation, maintenance or storage of battery liquid, or other abnormal use is not within our company's scope of responsibility. Our company will not bear any labor, business call, transportation or other expenses incurred for repairing this product.

There is no other clear warranty

Warranty is limited to one year, starting from the date of purchase, and within the scope permitted by law.

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