

# Ride-on Scrubber



## User Manual

**Please be sure to read this manual before using the machine**

# **Brief introduction**

## **Manual content and purpose**

This manual is intended to provide operators with necessary information for the correct and safe use of this machine. This information includes technical data, safety, operation, storage, maintenance, accessories, and how to scrap the machine. Before performing any operation or maintenance steps on this machine, operators and qualified technical personnel must carefully read this manual.

If you have any questions about the interpretation of this manual or want more relevant information, please contact our after-sales service department or agent.

Operators are not allowed to follow regulations that must be completed by technical personnel. Our company is not responsible for any losses caused by non-compliance with this regulation.

## **How to save the manual**

This manual must be stored near the machine for easy access. To avoid liquid or other substances contaminating and damaging the manual, please store it in a suitable bag or box.

## **Accessories and maintenance**

All necessary operations, maintenance, and repair steps must be carried out by qualified personnel or our company's designated repair center. Only original accessories and accessories can be used.

If you need service and order accessories or accessories, please contact our company's after-sales service department or agent, and provide the model and serial number of the machine.

## **Changes and improvements**

The company is committed to continuous improvement of its products and reserves the right to notify the already sold products of any improvements or changes.

## **Applicable scope**

This floor wash truck is used in commercial and industrial environments and is suitable for cleaning smooth and hard surfaces (scrubbing and sewage recycling). It must be used by qualified operators in a safe environment. This floor scrubber is not suitable for outdoor use and cleaning carpets and rough surfaces.

## **Machine identification**

The model and serial number of this machine are indicated on the nameplate label. This information is very important. When purchasing machine accessories, please provide the factory information of the machine.

## **Transportation and dismantling of packaging**

When receiving the machine, please check to ensure that the packaging and machine are intact and undamaged. If there is any damage, please ensure that the delivery personnel are clear and have written records of the damage before receiving the goods, and reserve the right to claim compensation for any losses caused.

After removing the packaging, check if the machine is equipped with the following items:

User manual, certificate of conformity, brush disc, needle disc, battery connection cable.

## **Danger**

This machine can only be used by appropriately trained or authorized personnel and must be operated according to this manual.

Before carrying out any operations such as use, maintenance, repair, or replacement of components, the machine must be turned off and the battery disconnected. And ensure that you have carefully read the instructions.

Please do not use this machine near toxic, dangerous, flammable, or explosive dust, liquids, or vapors. This machine is not suitable for cleaning hazardous dust.

Please do not wear jewelry when working near electrical components.

Unless there is safety support, operations cannot be carried out under the lifted machine.

When using wet batteries, they may release flammable gases during normal use. Smoking, pyrotechnic materials, strong light, and heating objects are strictly prohibited from approaching the battery.

When using wet batteries, they may release a small amount of hydrogen gas, and it is necessary to ensure that the charging environment is ventilated and away from open flames.

Before each use, please carefully check the machine to ensure that all components are installed correctly, otherwise it may cause harm to people or property.

Before using a battery charger to charge, please ensure that the frequency and voltage of the power supply are consistent with the power frequency and voltage indicated on the machine serial code sticker.

Do not pull or pull the charger wires to move the machine, do not let the wires pass through a closed door, nor wrap the wires around objects with sharp edges or corners, and do not let the machine run over the wires. Please keep the charger wires away from hot surfaces.

To avoid fire, electric shock, or personal injury, ensure that the machine is in a power off state when the user leaves the machine.

This machine is not suitable for outdoor use and is only suitable for indoor use.

It should be stored in a dry indoor environment when not in use.

The storage and working temperature of the machine must be between 0 ° C and +40 ° C, and the ambient humidity must be maintained between 30% -95%.

Please do not use this machine on slopes that exceed the specified slope.

When using floor cleaning solution, please follow the usage label for cleaning the melt bottle and wear suitable gloves to protect the user.

Please use the brush disc and needle holder provided with the machine and the components specified in the user manual. Using other brush discs and needle holders will reduce safety.

When the machine malfunctions, please confirm that it is not caused by a lack of maintenance. If there are other situations, please seek assistance from authorized personnel or maintenance centers.

Take all necessary precautions to avoid the danger of hair, jewelry, loose clothing, and other moving parts of the machine being entangled.

## **Do not use this machine in areas with particularly thick dust.**

Do not rinse the machine directly with water or high-pressure water gun, and avoid using corrosive substances for cleaning.

Avoid colliding with surrounding objects when using the machine, especially when collision may cause a risk of falling objects.

When the machine is stationary, stop using the brush disc or needle holder to avoid damaging the ground.

In the event of a machine fire, please use a dry powder fire extinguisher instead of a liquid fire extinguisher.

## **Do not remove or change the stickers on the machine.**

Please do not attempt to change the safety protection of the machine, and be sure to follow the maintenance guidelines.

Special attention should be paid when transporting machines with

temperatures below 0 °C. If there is water in the water tank and pipelines, it may freeze and seriously damage the machine.

If the parts need to be replaced, please obtain the original parts from an authorized dealer or agent.

If the machine cannot function properly due to damage, being placed outdoors, or falling into water, please take the machine to a maintenance center.

To ensure the safe and correct use of the machine, please have authorized personnel or repair centers perform regular maintenance according to the maintenance table in the corresponding chapter of the manual.

This machine can only be used as a cleaning tool and cannot be used for other purposes.

Please keep the work area clear and do not use this machine in case of blocked passages. Ensure that the airway is not obstructed by dust, hair, or any objects that may hinder air circulation.

Please use the machine in a well lit area.

## machine description

### Machine structure



1	Steering wheel	2	seats
3	Sewage tank cover	4	sewage tank
5	charging ports	6	brush disk cover
7	Accelerator pedal	8	Front lights
9	columns and	10	operation panels
11	Clear water tank water inlet	12	Liquid level pipe
13	Filter	14	Clear water tank water injection pipe
15	rear wheel	16	wiper assembly
17	suction pipe	18	tail warning light
19	sewage pipe		

## Control panel button functions and operating instructions



Serial number	Serial number	Function
1	Brush disc motor key	Press the brush disc motor button, the brush disc push rod motor will lower, and pressing the accelerator can work
2	Water suction motor key	Press the water suction motor button, the water lying push rod motor will lower, and pressing the accelerator can work
3	One click start button	After pressing, start the brush disc motor and water suction motor with one click
4	ECO energy-saving mode	Entering ECO energy-saving and power-saving mode can also reduce noise by 15%
5	Horn key	Pressing the horn button will emit a beep sound
6	Electricity meter and voltage meter	Dual battery protection display, used to observe battery and voltage, and voltage meter is also a fault meter, used to display electrical faults
7	Sewage tank full indicator light	The sewage tank full light is on, and the suction motor stops working
8	Illumination key	Press the lighting button to turn on the front headlights
9	Forward key	Press the forward button, press the accelerator, and the

		vehicle will move forward
10	Backspace	Press the back button, press the accelerator, and the vehicle will move backwards
11	High and low speed switch button	When the rabbit light is on, it indicates high speed, and when the turtle light is on, it indicates low speed
12	Keyswitch	To control the main power supply of the machine, it is necessary to turn the key to "OFF" during charging

## Usage Guidelines

### New machine battery installation

If the battery is installed incorrectly or wired incorrectly, the electrical components of the machine may be severely damaged. The battery can only be installed by qualified personnel. Set the charger based on the type of battery used. Before installation, check if the battery is damaged, disconnect the battery charging cable, and operate with caution.

### prompt

This machine requires four 6V200Ah batteries or one 24V lithium battery.



## Battery installation

1. Open the cover of the sewage tank to check if it has been emptied. If there is water in the sewage tank, first use a drainage pipe to drain the sewage.
2. Grasp the grip of the groove under the seat and slowly flip the dirty water tank backwards until the pull rope is in a tight state.
3. Carefully place the battery correctly into the battery compartment of the machine.
4. Connect the battery cable correctly as shown in the figure and lock it onto the battery with screws.
5. Insert the connector on the battery connection line into the machine battery connector.
6. Grasp the groove under the seat and carefully flip back the dirty water tank.

**When the sewage tank is flipped back, it is necessary to grasp the grip of the groove under the seat to prevent getting caught.**

## Installation and disassembly of brush disc/needle holder

### prompt

Select the corresponding brush disc or needle holder according to the floor that needs to be cleaned.

Before manually installing or uninstalling the brush disc or needle holder, ensure that all switches of the machine are closed, and wear protective gloves during operation to avoid being scratched by debris.

**Reminder: This machine uses pin buckle brush disc and needle disc.**

1. Insert the key switch and turn it to the "ON" position. (The brush disc cover and water scraper frame will automatically lift to their original position.)
2. Open the water blocking skirts on both sides of the brush disc cover outward. Insert the brush disc and needle disc.
3. Align the brush disc/needle disc with the flange under the brush disc cover,

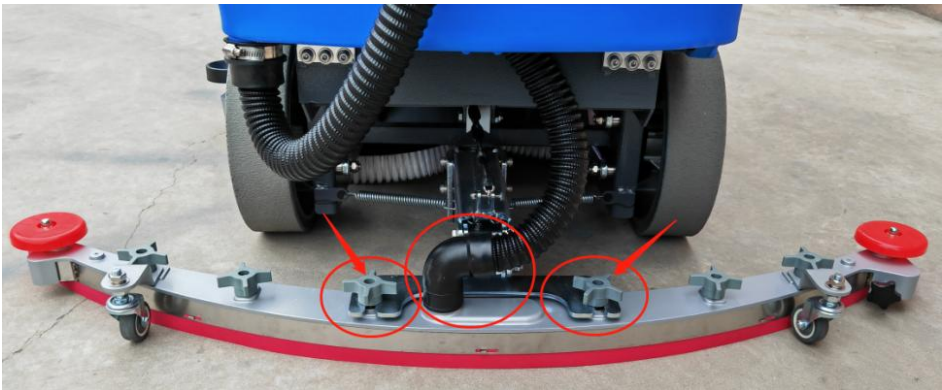
paying attention to placing it in the center position. The alignment of the three pins must be hung in the groove of the flange disc, and then rotate it by hand towards the center of the brush disc.

4. If you need to remove the brush, simply open the water blocking skirts on both sides of the brush disc cover and rotate the brush disc/needle disc counterclockwise.

#### **warning**

**Do not work until the brush disc/needle holder is installed properly.**

#### **Water scraper installation**



1. Turn on the key switch and turn it to the gear position "ON".
2. Press the "suction motor button" and the wiper assembly (16) will automatically lower to the ground.
3. Loosen the two handles on the water scraper assembly and lock it into the slot on the water scraper bracket.
4. Tighten the handle on the wiper assembly and insert the suction pipe connector onto the wiper assembly.

#### **Fill the solution/clean water tank with water**

1. Rotate and open the black cover of the water inlet of the machine's clean water tank.

2. Red is a water injection pipe that can be pulled out of the machine's water tank and connected to the faucet to add water to the machine. The length of the water injection pipe is 1.5 meters.

**Warning!**

**Only low foam cleaning agents specifically designed for floor scrubbers can be used, and defoamers must be added to the sewage tank, otherwise there is a risk of water ingress and burning of the motor.**



**Machine start and stop**

1. Prepare the machine according to the method described earlier. The operator sits on the machine seat cushion. Insert the key switch and rotate it to the "ON" position. First, check if the panel power meter is fully charged (i.e. all four lights are on). If the battery level display only shows one light, it indicates that the battery needs to be charged. Turn the key switch to the "OFF" position to fully charge the battery. (Refer to the maintenance section)

2. Press the "Brush disc motor key" and "Water suction motor key" (which can also be started with one button), the indicator light will light up, and the water scraper component and brush disc component will automatically be placed on the ground. Press the accelerator, and the brush disc motor and water suction motor will only work. If the accelerator is released, the brush disc will stop vertically, and

the water suction will delay for 8 seconds to stop working.

3. According to cleaning requirements, the amount of water output can be adjusted through ball valves. Visually inspect the water indicator tube next to the clean water tank. When the water level reaches the bottom, it indicates that the water in the clean water tank is almost depleted. Please add water immediately.

4. The speed can be adjusted by pressing the "Tortoise" button on the panel and the accelerator pedal under your feet. Press the "Tortoise" button to slow down and the "Rabbit" button to accelerate; A total of two speed adjustments. The deeper the accelerator pedal is pressed, the faster the speed. Slowly step on the accelerator pedal and control the steering wheel forward to start cleaning work.

5. To move back, press the 'Back' button. When the machine moves backwards, the wiper component automatically lifts and the cleaning function automatically stops.

6. In case of sudden or crowded crowds, press the "horn button" to warn, and the machine will emit a "beep" sound.

7. If in a dark place, please press the "lighting button" to turn on the headlights for illumination.

8. If encountering an emergency situation that requires immediate shutdown of the machine, please turn off the "key switch".

9. Release the accelerator pedal to stop the machine's movement.

10. Press the "Brush disc motor key" and "Water suction pump key" again, the indicator light will turn off, and the water scraper component and brush disc component will automatically lift. The brush motor is turned off, and the suction motor stops working after a delay of 8 seconds.

11. After ensuring that the machine has come to a stable stop, turn the key switch to the "OFF" position.

### **Attention!**

**To avoid damaging the ground, the brush disc and suction motor will stop working when the machine is not in a walking state.**

### **Attention!**

**Do not use the machine again when the battery is low to avoid damaging the**

**battery and shortening its lifespan.**

### **Sewage tank drainage**

1. When the sewage tank is filled with water, the floating ball of the sewage tank will start to block the suction port of the suction pump. At the same time, the indicator light of the sewage tank full on the panel will light up, and the suction motor will stop working and rise, which will cause the ground to be unable to dry. Please stop working in a timely manner.

2. Close the brush disc and suction pump system, and lift the brush disc and water scraper.

3. Drive the machine to the designated drainage area.

4. Empty the sewage in the sewage tank through the drainage pipe, and then rinse the inside of the sewage tank with clean water.

## **After using the machine**

**After the cleaning work is completed, please follow the following steps before leaving the machine:**

1. Remove the brush disc/needle holder according to the previous chapter.
2. Follow the steps described earlier to empty the clean water tank and sewage tank.
3. Complete daily maintenance steps.
4. Lift or remove the water scraper and store the machine in a dry and clean place.

## **When the machine is not in use for a long time**

**If the machine will not be used for more than 30 days, please handle it as follows:**

1. Complete all steps of "after using the machine".
2. Disconnect the battery connector.

## **First use**

**After the first 8 hours of use, please check the fasteners and connections of the machine for looseness, and check for visible damage and leaks.**

## **Warning!**

### **Maintenance and upkeep**

**These steps must be carried out after turning off the machine's power and disconnecting the machine from the battery. Before carrying out any maintenance steps, please carefully read the safety section in the manual.**

## **Battery charging**

When the screen shows that the battery level is only 1 bar, it is necessary to charge the battery, or charge it after each operation.

Maintaining the battery in a fully charged state can extend its service life.

After the battery is low, it is necessary to charge the battery as soon as possible, otherwise it will shorten its lifespan. Check the battery level at least once a week.

1. Drive the machine to the designated charging area.
2. Choose a suitable charger to charge according to the battery model used.
3. Connect the charger plug to the charging port under the machine seat, and then plug in the charger power plug.
4. After the battery is charged, disconnect the charger plug from the machine charging interface.

## **Cleaning of brush disc/needle holder and polishing pad**

It is recommended to wear protective gloves when cleaning the brush disc/needle holder and polishing pad, as they may contain sharp debris that can cause hand scratches.

1. Remove the brush disc/needle holder from the machine as described in the previous chapter.
2. Use cleaning solution and water to clean the brush disc/needle holder and polishing pad.
3. Check the wear condition of the brush bristles on the brush disc/polishing pad on the needle holder. If there is excessive wear, please replace the brush disc/polishing pad.

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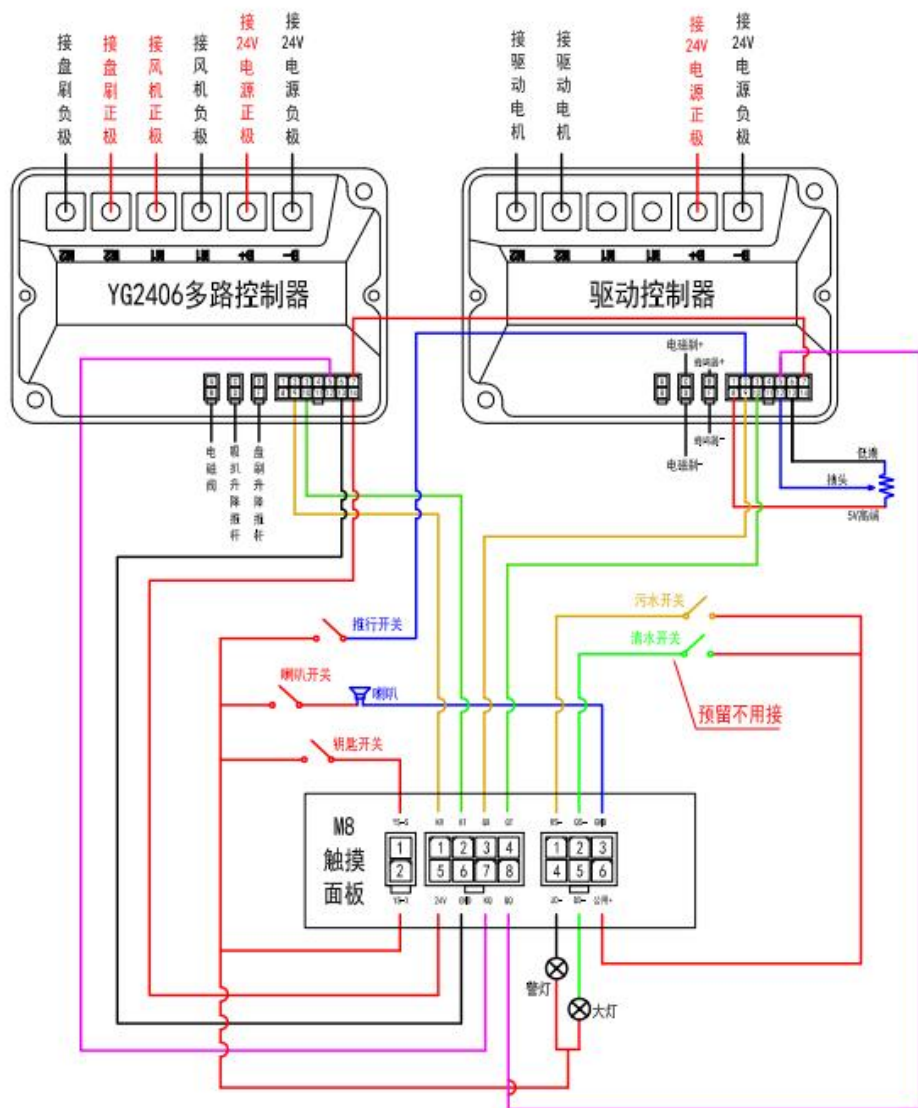
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## Electrical wiring diagram



## Fault Code Comparison Table

Classification	Fault codes	Fault content	parameter
Control panel	The headlight indicator light continues to flash	Headlight overload	Instantaneous current exceeding 7A
	The sewage full indicator light continues to flash	The sewage tank is full of water	Clean the sewage in the sewage tank

### List of fault codes for the integrated part

YG2406	E01	Brush disc push rod open circuit	
	E02	Brush disc push rod overload	0.5S exceeds 3A
	E03	Short circuit of brush disc push rod	
	E04	Brush disc push rod timeout	30S push rod not stopped
	E05	Fan push rod open circuit	
	E06	Fan push rod overload	0.5S exceeds 3A
	E07	Fan push rod short circuit	
	E08	Fan push rod timeout	30S push rod not stopped
	E09	Brush disc overload	50A for over 30 minutes
	E10	Brush disc overload	80A over 5S
	E11	Brush disc short circuit	
	E12	Fan overload	35A over 30S
	E13	Fan overload	45A over 5S
	E14	Fan short circuit	
	E15	Water valve overload	5A exceeds 0.1S

### List of Fault Codes for the Drive Part

<b>YG24140</b>	E31	Electromagnetic brake not connected	Check if the electromagnetic brake plug and circuit are loose
	E32	The drive motor is connected	Check if the drive motor circuit is loose
	E33	Implementation mode	After turning off the push mode, restart the power supply
	E34	Main control circuit failure	Replace the controller and return to the factory for maintenance
	E35	Main control circuit or motor short circuit fault	If it runs within 10 seconds of being powered on for the first time, it may be triggered by mistake. If it continues to flash after being powered on again, replace it with a new controller
	E36	motor overload	Restart the power supply and check if the drive motor is overloaded or damaged