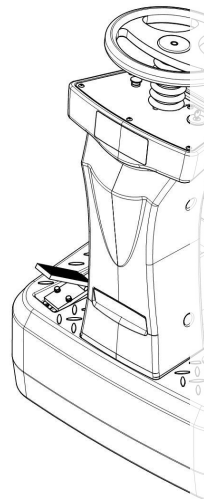


## Operator Manual IR530 Rider Scrubber



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SAFETY • **Please check the designation of your**

visible symbols on the machine

symbols that appear as well as on the ID plate

general safety instructions

#### WARNING

**Do not use the pallet truck before reading and understanding these operating instructions.**

#### NOTE:

**Please check the designation of your  
model type on the last page of this**

**document as well as on the ID plate**

**Keep for future reference.**

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## INTRODUCTION



### NOTE

The numbers in brackets refer to the components shown in Machine Description chapter.

## MANUAL CONTENT AND PURPOSE

- The purpose of this Instruction for Use Manual is to provide the operator with necessary information to use the machine properly and safely. It contains information about technical data, safety, operation, storage, maintenance, spare parts and how to scrap it.

- Before performing any procedure on the machine, no matter the operators and qualified technicians must read this Manual carefully. Contact our company's service center for any query about this manual or for any further information is needed.
- If you have any questions about the explanation of this manual or want more related information, please contact our after-sales or agency.

## HOW TO KEEP THIS MANUAL

- The Manual must be kept near the machine, inside an adequate case, away from liquids and other substances that can cause any damage to it.

## DECLARATION OF CONFORMITY

- Declaration of Conformity is supplied with the machine and certifies machine conformity with the law in force.



### NOTE

The copies of the original declaration of conformity are provided together with the machine documentation.

## ACCESSORIES AND MAINTENANCE

- All the necessary operation, maintenance and repair procedures must be performed by qualified personnel, or by our company appointed service center. ONLY authorized spare parts and accessories should be used.
- Contact our company customer service for any service or purchase of accessories or spare parts if necessary.

## CHANGES AND IMPROVEMENTS

- We committed to continuous improvement of the products, the company reserves the right to the machine changes and improvements without informing in additional.

## SCOPE OF APPLICATION

- The scrubber applies to commercial and industrial use. It is suitable for cleaning smooth and solid floors, operating by qualified personnel in safety circumstance. It is not suitable for outdoor use, carpet, or rough floor cleaning.

## MACHINE IDENTIFICATION DATA

- The machine serial number and model name are marked on the serial label. This information is useful. Use the following table to write down the machine identification data when requiring spare parts for the machine.

## TRANSPORT AND UNPACKING

- When the carrier delivers the machine, make sure the packaging and machine are both whole and undamaged. If any damaged, make the carrier know the damage and before accepting the goods, reserve the right in compensation of the damage.

Follow the instructions on packing strictly when unpacking the machine.

Check the package to ensure following items are included:

1. Technical documentations including Quick Start Guide manual.
2. Charger cable and connection wires for battery.

# SAFETY

- The following symbols indicate potentially dangerous situations. Always read this information carefully and take all necessary precautions to safeguard people and property.

## VISIBLE SYMBOLS ON THE MACHINE



### WARNING!

Read all the instructions carefully before performing any operation on the machine.

## SYMBOLS THAT APPEAR ON THE INSTRUCTION FOR USE MANUAL



### DANGER!

It indicates a dangerous situation with risk of death for the operator.



### WARNING!

It indicates a potential risk of injury for people.



### CAUTION!

It indicates a caution or a remark related to important or useful functions. Pay attention to the paragraphs marked by this symbol.



### NOTE

It indicates a remark related to important or useful functions.



### CONSULTATION

It indicates the necessity to refer to the Instruction for Use manual before performing any procedure.

## GENERAL SAFETY INSTRUCTION

Specific warnings and cautions to inform about potential damages to people and machine are shown below.



### DANGER !

- This machine must be operated by trained and authorized personnel according to guidance of the manual.
- Before performing any cleaning, maintenance, repair or replacement procedure, read all the instructions carefully, ensure to turn the machine OFF and disconnect the battery connector.
- Do not operate the machine near toxic, dangerous, flammable and/or explosive powders, liquids or vapors. This machine is not suitable for collecting dangerous powders.
- Do not wear jewels when working near electrical components.

- Do not work under the lifted machine without supporting it with safety stands.
- x When using lead (WET) batteries, they may emit inflammable gas under normal use, must keep sparks, flames, smoking materials and radiating, illuminating and burning items away from the batteries.
- x When charging lead (WET) batteries, they may emit hydrogen gas which may cause explosive. Must ensure the charging environment is well ventilated and away from naked flames.



## **WARNING !**

- This machine is intended for COMMERCIAL USE, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.
- Machines left unattended shall be secured against unintentional movement.
- In order to prevent unauthorized use of the machine, the power source shall be switched off or locked, for example by removing the key of the main switch or the ignition key.
- Check the machine carefully before each use. Ensure that all the components have been well assembled before use. Or it may cause damages to people and properties.
- Before using the battery charger, ensure that the values of frequency and voltage indicated on the machine serial number label match those of mains.
- Never move the machine by pulling the battery charger cable. Do not let the cable through a closed door, or winding on sharp edges or corners.
- Do not run the machine on the battery charger cable.
- Keep the battery charger cable away from heated surfaces.
- Do not charge the batteries if the battery charger cable or the plug are damaged.
- To reduce the risk of fire, electric shock, or injury, make sure machine is off before leaving.
- Use or store the machine indoors in dry conditions, it is not allowed for outdoor use.
- The machine both storage and working temperature must be between 0 °C and +40 °C, the humidity of air must be between 30% - 95%.
- Do not use the machine on slopes with a gradient exceeding as specification show.
- When using and handling floor cleaning detergents, follow the instructions on the labels of the detergent bottles and wear suitable gloves and protections.
- Use brushes and pads supplied with the machine or defined in the manual. Using other brushes or pads could reduce safety.
- In case of machine malfunctions, ensure that these are not due to lack of maintenance. If necessary, request assistance from the authorized personnel or from an authorized Service Center.
- Take all necessary precautions to prevent hair, jewels and loose clothes from being caught by the machine moving parts.
- Do not use the machine in particularly dusty areas.
- Do not wash the machine with direct or pressured water jets, or with corrosive substances.
- Do not bump into shelves or scaffoldings, especially where there is a risk of falling objects.
- Do not lean liquid containers on the machine, use the relevant can holder.
- To avoid damaging the floor, do not allow the brush/pad to operate while the machine is stationary.
- In case of fire, use a dry powder fire extinguisher. Do not use liquid fire extinguishers.
- Do not remove or modify the machine stickers.
- Do not tamper with the machine safety guards and follow the ordinary maintenance instructions scrupulously.
- Pay attention during machine transportation when temperature is below freezing point. The water in the recovery tank and in the hoses could freeze and cause seriously damage to the machine.

- If spare parts need be replaced, order ORIGINAL spare parts from an Authorized Dealers or Retailers.
- Return the machine to the Service Center if it doesn't work as usual or is in condition such as damaged, placed outdoors, dropped into water.
- To ensure machine proper and safe operation, the scheduled maintenance shown in the relevant chapter of this Manual, must be performed by the authorized personnel or an authorized Service Center.
- The machine must be properly disposed of, because the presence of toxic-harmful materials (batteries, etc.), which are subject to standards that require disposal in special centers (see Scrapping chapter).
- This machine as a cleaning tool only, not for any other purpose use.
- Always keep the openings free from dust, hairs and any other foreign material which could reduce the air flow. Do not use the machine if the openings are clogged.
- Use the machine only where a proper lighting is provided.
- This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Close attention is necessary when used near children.
- Children should be supervised to ensure that they do not play with the machine.
- While using this machine, take care not to cause damage to people or objects.

# MACHINE DESCRIPTION

## MACHINE STRUCTURE (as shown in Figure 1)

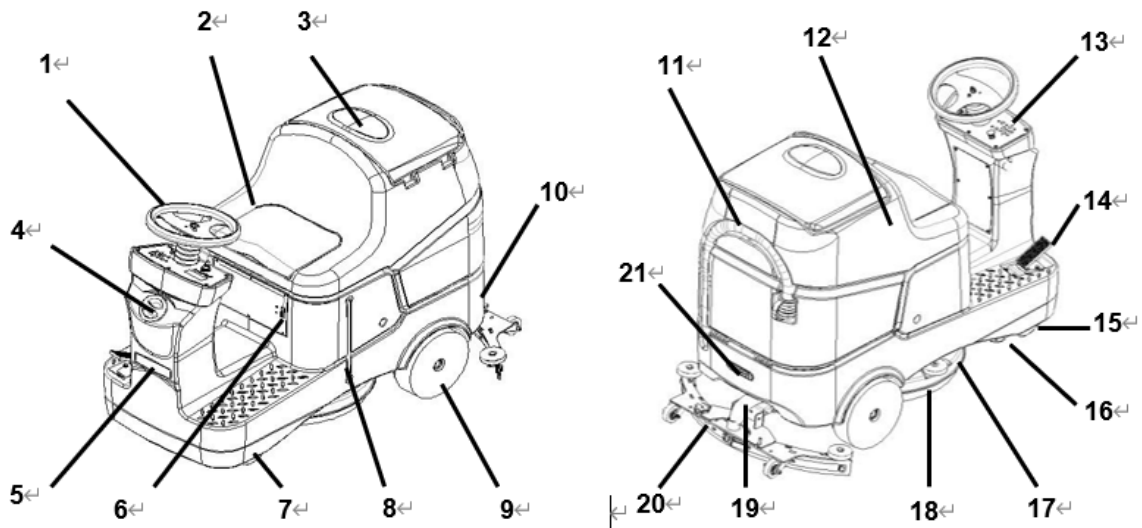


Figure 1

- |                                   |   |
|-----------------------------------|---|
| 1. Steering wheel                 | 12. Solution tank water level indicator |
| 2. Seat cushion                   | 13. Empty water indicator               |
| 3. Recovery tank cover            | 14. Water inlet for solution tank       |
| 4. Recovery tank                  | 15. Rear wheel                          |
| 5. Controller box & charging port | 16. Squeegee assembly                   |
| 6. Brush deck                     | 17. Vacuum hose                         |
| 7. Accelerate pedal               | 18. Rear warning lamp                   |
| 8. Front LED lamp                 | 19. Drain hose                          |
| 9. Front column                   |   |
| 10. Control panel                 |   |
| 11. Solution tank                 |   |



## CONTROL PANEL FUNCTION DESCRIPTION (as shown in Figure 2)

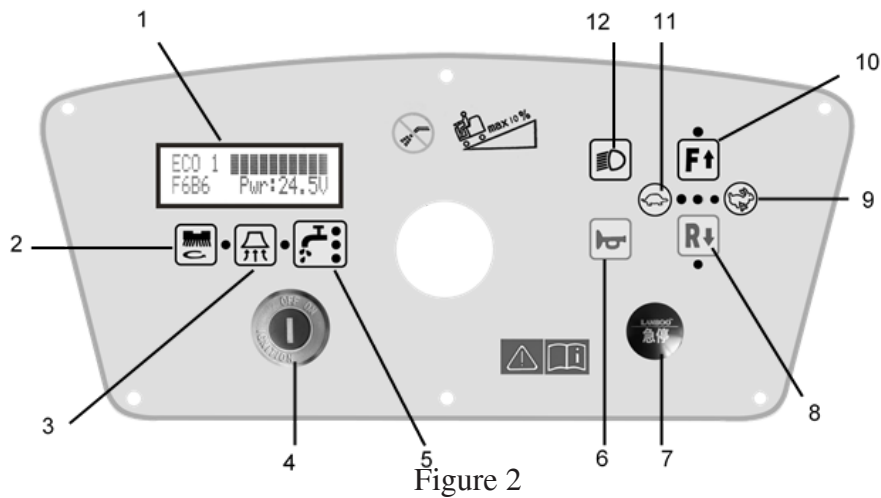


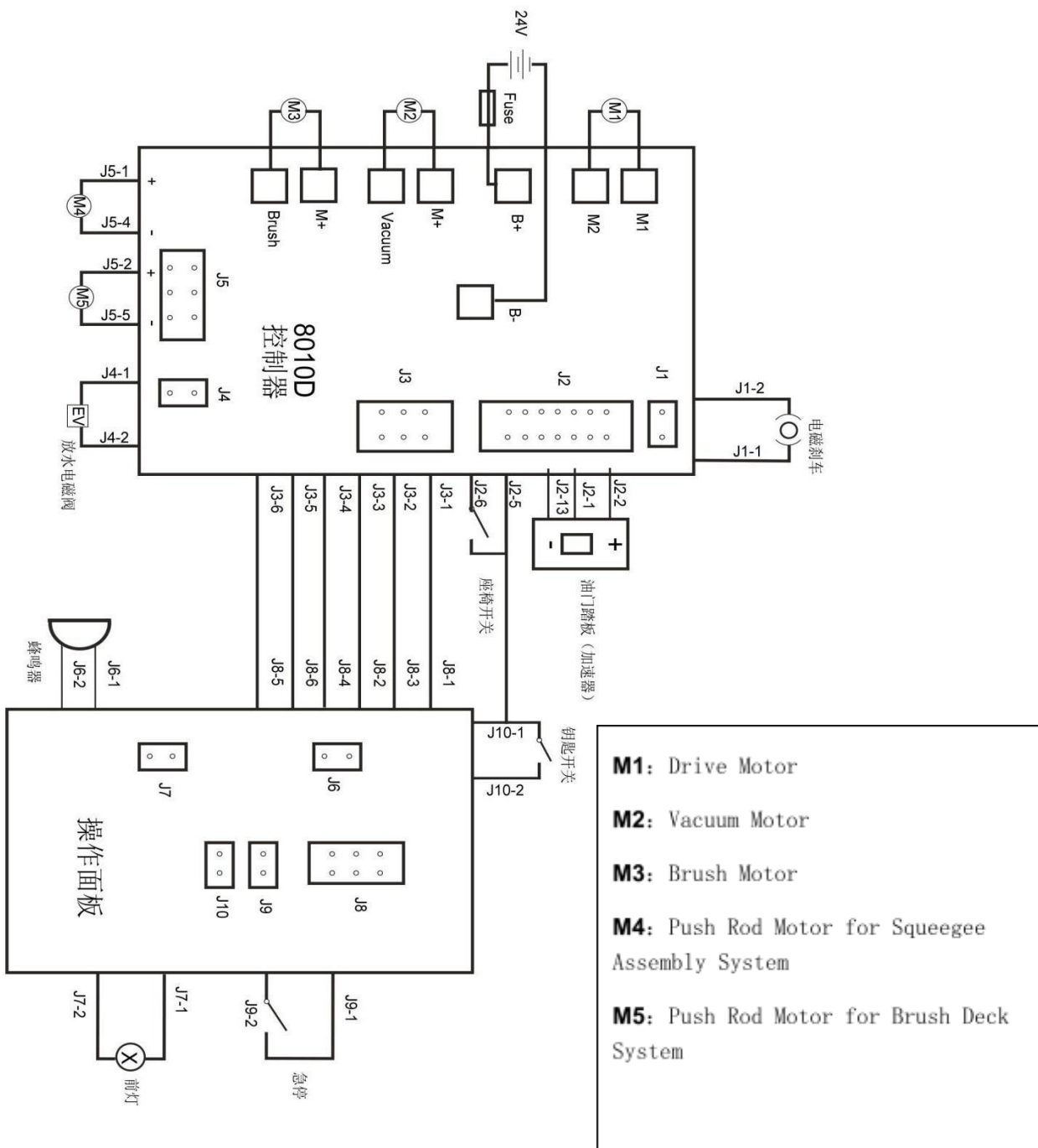
Figure 2

NO.	Description	Function
1	LCD screen	Display the functional status of the machine
2	Brush system switch	Press the button, the push rod motor of the brush system drops, and the brush motor works
3	Vacuum system switch	Short press the button, squeegee assembly system push rod motor down, and vacuum motor works
		Long press the button to enter ECO energy-saving mode
4	Main key switch	Control the main power supply of the machine, and press the key to "OFF" when charging.
5	Solution volume adjusting button	Press the button to adjust the amount of water, the amount of water will change repeatedly from small to large
		Long press the button, automatic brush unloading can be performed
6	Horn button	Press the horn button and a beep will be issued
7	Emergency stop button	Press the emergency stop switch, the machine will stop working
8	Backward button	Press the backward button, step the accelerator pedal, the machine will walk backwards
9	Speed increase button	Press the button to increase the machine drive speed, indicator light 3 is the fastest speed
10	Forward Button	Press the forward button, step the accelerator pedal, and the machine will move forward
11	Speed reduce button	Short press the button to reduce the machine drive speed, the slowest when the indicator 1 light
12	Front LED lamp button	Short press the button to turn the headlight on and off.
		Long press the headlight key to enter the LCD turning screen and read the working state of the machine.

## TECHNICAL PARAMETERS

Technical Specification	Technical Specification Value
Rated power (W)	2010
Brush motor power (W)	380*2
Drive motor power (W)	650
Vacuum motor power (W)	600
Vacuum (kPa)	>15
Voltage (V)	24
Sound pressure level at 1.5 m (dB(A) ISO 3744)	68±3
Max. speed (km/h)	6
Machine size(L x W x H) (mm)	1415*890*1120
Brush speed (RPM)	180-200
Solution/recovery tank capacity (L)	120/120
Brush pressure (kg)	45
Scrubbing width (mm)	810
Min. turn-around aisle width (cm)	1420
Max. climbing rate (%)	10
Productivity theoretical/actual (m <sup>2</sup> /h)	4860/3800
Insulation class	III
Brush/pad diameter (mm)	410/410
IP protection class	IP24
Net weight W/O battery (kg)	185
Gross weight (kg)	320
Water flow (l/m)	2.5
Max. running time (H) 12V120AH * 2	4-5hrs
Battery compartment size (L x W x H) (mm)	460x460x310
Brush quantity and type	2 Disc

# CIRCUIT DIAGRAM



- M1:** Drive Motor
- M2:** Vacuum Motor
- M3:** Brush Motor
- M4:** Push Rod Motor for Squeegee Assembly System
- M5:** Push Rod Motor for Brush Deck System

# OPERATING GUIDE

## WARNING!



The electric components of the machine can be seriously damaged if the batteries are either improperly installed or connected. The batteries must be installed by qualified personnel. Check the batteries whether it is damaged before installation. Disconnect the battery connector and the battery charger plug. Handle the batteries with great care.



## NOTE

The machine requires 4pcs 6V200Ah batteries or one 24V lithium batteries, connecting according to the Figure shown on battery case of solution tank.

## BATTERY INSTALLATION

1. Open the recovery tank cover (3 on figure 1) and check the recovery tank (4 on figure 1) is empty, otherwise, empty it with drain hose (19 on figure 1).
2. Hold the groove under seat and open the recovery tank until the steel rope straighten.
3. Route and install the battery cable as shown on battery case of solution tank, then carefully tighten the nut on each battery terminal.
4. Place the protection cap on each terminal, and then connect batteries to connector on machine.
5. Close and put down the recovery tank carefully by holding the groove.



## NOTE

Ensure to hold the hand groove when turning over the recovery tank.

## EMERGENCY BRAKING

If there is any emergency during machine operating, press the emergency button (7, Figure 2), then all functions of machine will stop, no display on control panel. Push emergency switch restore power supply

## BRUSH/PAD INSTALLATION AND UNINSTALLATION



## NOTE

According to the need to clean the floor to choose the appropriate brush disc or needle holder



## CAUTION

**Before manually installing or uninstalling the brush disc or pin holder, ensure that all switches of the machine are off. Protective gloves must be worn during operation to avoid scratches by debris**

**NOTE**



**The machine uses the magnetic connection for brush/pad holder. The specific installation and uninstallation brush/pad holder steps are as follows:**

1. Insert the key switch and turn to position "ON" to ensure the brush deck returns to the original high position. And then turn to "OFF" to shut down the power of machine.
2. Open the side cover of brush by holding the handle pin (the side cover of brush connection is magnetic connection, there is no tools need to open it). Put the brush/pad holder under the brush deck and ensure the center close to the connection plate, the brush/pad holder will automatically be absorbed and fixed by magnet. Close on the side cover and the installation done.
3. If need to uninstall the brush/pad, open the side cover and step the brush/pad to get it fall down.



**WARNING**

**Do not start using machine to work until the brush/pad is installed.**

## **SQUEEGEE ASSEMBLY INSTALLATION**

1. Insert the key into key switch (4 of figure 2) and turn to "ON" position.
2. Press the "Vacuum motor button" (3 of figure 2), and the squeegee assembly support frame will be automatically lowered to the ground.
3. Unscrew the two knobs on the squeegee assembly and lock it into the groove on the squeegee assembly support frame.
4. Tighten the knob on the squeegee assembly and insert the vacuum hose (17 of figure 1) into the connector of the squeegee assembly.

## **SOLUTION TANK FILLING**

1. Open the water inlet cover or take out the water inlet pipe and connected to the water tap (11 of figure 1).
2. Fill the cleaning water or detergent suitable for floor by hose. The solution tank water level indicator (12 of figure 1) on the side can be used to check the water capacity in the solution tank. When the float ball reaches "F", it means the solution water tank is full. The temperature of the filling water or detergent shall not exceed +104F (+40°C).
3. Or pull out the injection pipe on the machine (11 of figure 1) connect with water tap to add water to the machine. The length of the injection pipe is 1.5 meters.



**NOTE**

**Please avoid the float ball exceeding the scale "F" when filling water. Overfilling water will spillover from water inlet.**



**WARNING**

**Use only low-foam and non-flammable detergents, which should be suitable for the use of floor washer.**

## **MACHINE START AND STOP**

1. Prepare the machine as shown in previous paragraph. Operators sit on machine seat (machine has seat switch which means operator must sit on the seat when operate machine). Insert the key and turn to "ON" position. If the battery power display is 100%, it means the battery is fully charged and available for use. If the battery level shows 10% or "Low battery" shown on the screen, the battery needs to be recharged. Turn the key switch to "OFF" and charge the battery fully. (See Maintenance Section)
2. Push the "Brush button" (2 of figure 2) and "Vacuum button" (3 of figure 2), the indicator light will turn on, the squeegee assembly and the brush deck will automatically release to the ground. Brush motor and vacuum motor start running.
3. According to the cleaning demand, the solution water volume can be adjusted through the "Solution water volume adjusting button" on the control panel (5 of figure 2), three levels volume can be adjusted and indicate by the water quantity indicator light. The maximum amount of water is indicated when the indicator light is fully on. Visually check the water level indicator beside the solution tank (13 of figure 1). When the floating ball reaches the bottom, it means the water in the water tank is going to be used up. Please fill the water accordingly.
4. The machine drive speed can be adjusted through the "Tortoise/Rabbit button" (11/9 of figure 2) on the panel. Press the "Tortoise" button to slow down, and press the "Rabbit" button to accelerate. A total of three speed regulation. The deeper of the accelerator pedal is pressed, the faster it goes. Push the accelerator pedal slowly, take the steering wheel forward and start cleaning.
5. To backward the machine, press the "R" button. When the machine backward the squeegee assembly and brush disc automatically lift, cleaning function automatically stop.
6. In case of sudden crowd or crowded situation can press the "Horn button" warning, the machine will issue a "beep" sound.
7. If in the dark place, please press the "Front light button", the front LED lamp turn on.
8. If need to stop the machine immediately in case of emergency, please press the "Emergency stop button" (7 of figure 2).
9. Release the foot on the accelerator pedal to stop the machine.
10. Press the "Brush button" and "Vacuum button" again, the indicator light will turn off, and the squeegee assembly and the brush deck assembly will automatically lift. The brush motor shuts down and the vacuum motor shuts down after a few seconds.
11. Make sure turn the key switch turn to "OFF" position when stop using the machine.



#### **NOTE**

**To avoid any damage to the floor surface, the brush/pad-holder will be automatically turned off when the machine stop in one place.**



#### **NOTE**

**Do not use the machine when the battery power is low, to avoid any damage of the battery.**

### **RECOVERY TANK EMPTYING**

1. When the recovery tank is full, the floating ball system in the recovery tank will start to block the suction port of the suction motor, and the ground cannot be sucked dry. Please stop working immediately.
2. Turn off the brush motor and vacuum motor to lift the brush deck and squeegee assembly system.
3. Drive the machine to the designated drainage area.
4. Empty the recovery tank through the “Drain hose” (19 of figure 1), then flush the inside of recovery tank with clean water.



#### **WARNING**

**When the recovery tank is full, please stop working immediately to avoid sewage entering the vacuum motor.**

### **SOLUTION TANK EMPTYING**

Unscrew the “Solution tank outlet” cover under the accelerator pedal of the solution tank to empty the cleaning water.

### **AFTER USING THE MACHINE**

After working, please follow the following steps before leaving the machine:

1. Remove the brush/Pad holder according to the disassembly description in previous section.
2. Follow the step described above to empty and clean the solution tank and the recovery tank.
3. Follow the daily maintenance steps (see Maintenance section).
4. Lift or remove the squeegee assembly system and store the machine in a clean and dry place.

### **MACHINE LONG INACTIVITY**

If the machine is not going to be used for more than 30 days, please do as follows:

1. Perform the procedures shown in “AFTER USING THE MACHINE” paragraph.

2. Disconnect the battery connector.

## **USING FOR THE FIRST TIME**

After 8 hours using of the machine for the first time, please check if any damage or abnormal situation, check whether the fasteners or fittings is loose.



# MAINTENANCE

## WARNING!



**Maintenance procedures must be performed after the machine is turned off and the battery charger cable is disconnected. In addition, carefully read the safety chapters in the guide.**

All scheduled or extraordinary maintenance procedures must be performed by qualified personnel or an authorized Service Center. This guide only describes the general and common maintenance procedures.

For other maintenance procedures that are in below maintenance schedule table, please refer to the Service Manual that can be consulted at any Service Center.

## SCHEDULED MAINTENANCE TABLE

### CAUTION!



**The procedure marked with (1) must be performed when the machine is used after 8 hours for the first time. The procedure marked with (2) must be performed by an authorized service center.**

Procedure	Daily,after each use	Weekly	Semiannually	Yearly
Battery charging				
Squeegee cleaning				
Brush/Pad-holder cleaning				
Tank cleaning				
Tank sealing strip inspection				
Squeegee blade check and replacement				
Cleaning water filter cleaning				
Suction filter cleaning				
Screw and nut tightness inspection			1	
Brush/Pad-holder carbon brush check or replacement				2
Suction motor carbon brush check or replacement				2
Drive system motor carbon brush check or replacement				2

## BATTERY CHARGING

### NOTE



**Re-charge the batteries when there is only two or less two rectangular show at the right bottom LCD screen (A, Figure18), or after every time cleaning work.**



### CAUTION

**Always keep the battery in a state of charged can extend its lifetime.**



### CAUTION

**Please charge the battery as soon as possible if the battery level is low. Otherwise, the lifespan of battery can be reduced. It is better to check the battery at least once a week.**

1. Drive the machine to designated charging area.
2. According to the type of battery used, choose the appropriate charger to charge.
3. Connect the charger plug to the charging port under the seat of the machine first, and then plug in the charger plug to the power socket.
4. After charging the battery, disconnect the charger plug from the power socket, and then disconnect plug with machine.

## BRUSH/PAD CLEANING



### CAUTION!

**It is advisable to use protective gloves when cleaning the brush/pad because there may be sharp debris.**

1. Remove the brush/pad from the machine, as shown in the Use chapter.
2. Remove the brush/pad from the machine, as shown in the Use chapter.
3. Check that the brushes/pads are in working condition and not excessively worn; if necessary replace them.

## SOLUTION FILTER CLEANING

1. Close the inlet water valve at the front bottom of the clean tank.
2. Remove the filter cover, clean the filter, then assemble it to the filter body again.
3. Open the inlet valve and check that the strainer is properly installed without leakage.

## SQUEEGEE CLEANING AND STORAGE



### NOTE

**The squeegee must be clean and its blades must be in good conditions in order to get good drying.**



### CAUTION

**It is advisable to wear protective gloves when cleaning the squeegee because there may be sharp debris.**

1. Drive the machine on a level floor.
2. Turn the ignition key to “ON”.
3. Press “Vacuum button” to release squeegee
4. Loosen the knobs and remove the squeegee.
5. Disconnect the vacuum hose from the squeegee. Clean the steel or the aluminum squeegee. Clean the compartments and the hole especially. Check the front blade and the rear blade for integrity, cuts and tears; if necessary, replace them (see the procedure in the following paragraph).
6. Assemble the squeegee in the reverse order of disassembly and make sure the squeegee assembly system is lifted.

## SQUEEGEE BLADE CHECK AND REPLACEMENT

1. Clean the squeegee (Fig. 3) as shown in the previous paragraph.
2. Check that the edge (E, Fig. 3) of the front blade (C) and the edge (F) of the rear blade (D) lay down on the same level, along their length; otherwise adjust their height according to the following procedure:
  - Remove the tie rod (G), disengage the retainers (M) to adjust the rear blade (D); then engage the retainers and install the tie rod.
  - Loosen the handwheels (I) and adjust the front blade (C); then tighten the handwheels.
3. Check the front blade (C) and rear blade (D) for integrity, cuts and tears; if necessary replace them as shown below. Check that the front corner (J) of the rear blade is not worn; otherwise, overturn the blade to replace the worn corner with an integral one. If the other corners are worn too, replace the blade according to the following procedure:
  - Remove the tie rod (G), disengage the retainers (M) and remove the retaining strip (K), then replace/overturn the rear blade (D). Install the blade in the reverse order of removal.
  - Loosen the handwheels (I) and adjust the front blade (C); then tighten the handwheels.
  - Unscrew the handwheels (I) and remove the retaining strip (L), then replace the front blade (C). Install the blade in the reverse order of removal.After the blade replacement (or overturning), adjust the height as shown in the previous step.
4. Connect the vacuum hose (17) to the squeegee.

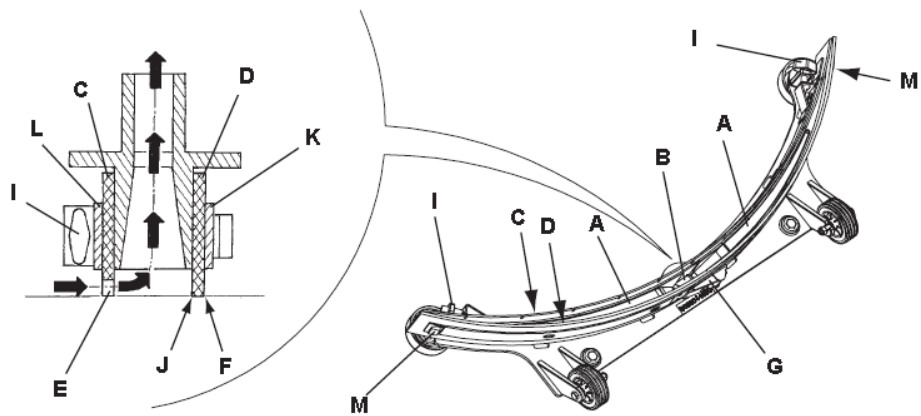


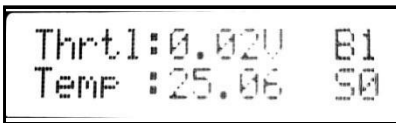
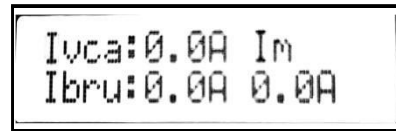
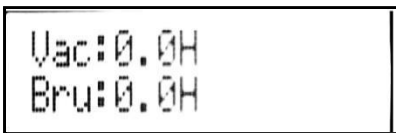
Figure 3

## RECOVERY TANK CLEANING, AND COVER GASKET CHECK

1. Empty the recovery tank by drain hose.
2. Open the recovery tank to the vertical state, take out the recovery tank cover and rinse the recovery tank cover and recovery tank with clean water.
3. Check whether the bearing surface of the sealing strip is complete and adequately sealed. If necessary, remove the sealing from the tank and replace it.
4. Put on the recovery tank cover.

## MACHINE RUNNING DATA CHECK

Long press the "FRONT LED LAMP BUTTON" (12 of figure 2) can be used to turn the LCD screen to read various working data of the machine. There are four pages in total.



LCD Display	Description
ECO	Energy saving mode: 0 for off, 1 for on
F	Brush deck push rod motor state, 1-3 is down, 4-6 is up.
B	Squeegee system push rod motor state, 1-3 is down, 4-6 is up.
Pwr	The battery voltage value, above is the 10 stages of power display.
Vac	Total working time of vacuum motor.
Bru	Total working time of brush motor.
Ivca	Real-time working current of vacuum motor
Ibru	Real-time working current of brush motor
Thrt1	Accelerator input value
Temp	Controller temperature
B0/B1	The electromagnetic brake of drive motor is disconnected/connected
S0/S1	Seat switch close/open

## TROUBLE SHOOTING

<b>Trouble</b>	<b>Probable causes</b>	<b>Remedy</b>
The machine doesn't work and the LCD display doesn't light up	The battery connector is disconnected	Connect the battery connector
	The batteries are completely discharged	Charge the batteries
10% The machine don't work, and the battery is displayed at 10%	Low battery	Charge the batteries
The machine do not go-forward/backward	the control circuit board fault	Replace the control circuit board
	The operator not on the seat or seat switch broken	Sit on the seat or replace seat switch
	The accelerator pedal is unconnected or damaged	Check the cable or replace the accelerator pedal
The brush motor does not work	The control circuit board fault	Replace the control circuit board
	Brush motor overload	Use soft bristle brush that is suitable for cleaning, and reset the brush motor overload protector
	Brush motor carbon brush wearing	Contact after-sales service
	Obstacles prevent the brush rotating	Clean the brush
The vacuum motor does not work	Vacuum motor damage	Check and replace vacuum motor
	The control circuit board fault	Replace the control circuit board
Insufficient suction, the floor cannot be dried	Recovery tank is full	Empty the recovery tank
	Drain hose and squeegee poor connection	Connect the drain hose and squeegee correctly
	Squeegee is dirty or wearing	Check and clean the squeegee
	The recovery tank cover is not closed properly, or the gasket is damaged, or the Bend tube is clogged	Close the cover correctly, or replace the gasket or clean the Bend tube.
	The Recovery tank is dirty	Clean the recovery tank
Insufficient solution supply to brush plate	The solution filter is dirty	Clean the filter
	The solution tank is too dirty or a clogged pipeline	Clean the solution tank and piping
Squeegee leaves scratch on the floor	There are debris under the squeegee blade	Remove the debris
	Squeegee blade wear, crack, aged	Replace the squeegee blades

## LCD DISPLAY FAULT CODE

LCD Display	Fault Cause
Low battery	Low voltage fault
Solution tank E	Solution tank empty (no clean water)
Recovery tank F	Recovery tank full
Keyoff longer	Turn on the switch key too quick (more than 3 seconds)
Traction error	Drive motor wire connection open
High temperature	The controller temperature rise is too high
Brush overcurr	Brush motor current is too large
Vacuum overcurr	Vacuum motor current is too large
Vacuum open	Vacuum motor wire connection open
Brush open	Drive motor wire connection open
Fjmk overcurr	Brush deck push rod motor over current
Bjmk overcurr	Squeegee assembly push rod motor over current
Prechange error	Charge fault
Pedal error	Accelerator pedal release issue
Drive open	Drive motor wire connection open
Drive overcurr	Drive motor over current

## **SCRAPING**

1. Scrap the machine by the qualified waste treatment institution.
2. Before the machine is scrapped, please take away and segregate below subassembly that relevant laws and regulations request must be disposed in appropriate way.

Battery

Brush/Pad-holder

Plastic hose and plastic parts

Electrical and electronic components