

**JL Dyno Scrub Pro
Automatic Floor Scrubber
(Black/Yellow)**

Thank you for choosing JL Dyno Scrub Pro
Please read the user manual carefully before usage

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1.SAFETY PRECAUTION

This machine is for commercial usage. It specializes in cleaning indoor floors, can not be used for other purposes. Please use our suggested scouring pads, brushes and use No Foam detergent only(When you use detergent,only No Foam is allowed).

The following **Safety warning symbol** and "**for safety**" title is used throughout this manual. Here are the purposes:

Warning: It's used for warning the unsafe operations that may cause series personal injury or risk of death.

For safety: Point out the items you must follow when you operate the machine.

Safety prevention symbols below point out the potential dangerous to operator and the machine. So the operator must read and understand the following safety precautions.

Warning: Fire or explosion danger.

Do not use flammable liquids: Do not operate this machine near or in places with flammable liquids, gases or combustible dust.

The machine is not equipped with an explosion-proof motor, during operation, its electric motor will produce sparks, if used in places with flammable gas liquid or combustible dust, may cause flash or explosion.

-Do not pick up flammable materials or active metals.

-The battery releases hydrogen. Keep the battery slot open when charging away from sparks or open fire sources.

Warning:The danger of electric shock

-Remove the battery wiring and the charger plug before repairing the machine.

-Do not use the damaged power cord to charge the battery, do not modify the plug.

If the power cord of the charger is broken , it must be replaced by the manufacturer or its maintenance agent or similar qualified personnel to avoid the danger.

Warning:When brush is rotating. Never keep your hands close. Please turn off the power before repairing the machine

For your safety

1.Do not operator machine if there is any situations below:

-Contact or close to flammable liquids or gas, explosion or flash may be occurred. -Unless be trained and authorized.

-Unless already read and understand the operation manual.

-No normal operating conditions are available

2.When start the machine:

-Make sure all safety devices are set up and run well.

3.When using the machine:

-Please walk slowly on the slope and slide surface.

-Wear anti-skid shoes.

-Please slow down when turning.

-Machine damage or operation failure should be reported immediately.

-Do not let the children play the machine or play nearby the machine.

-Do not operate on slopes with slopes above 20 degree

4.Before leaving or maintain the machine:

- Park the machine on smooth ground, power off the machine.
- Set hand brake (if equipped).

5.When repair the machine:

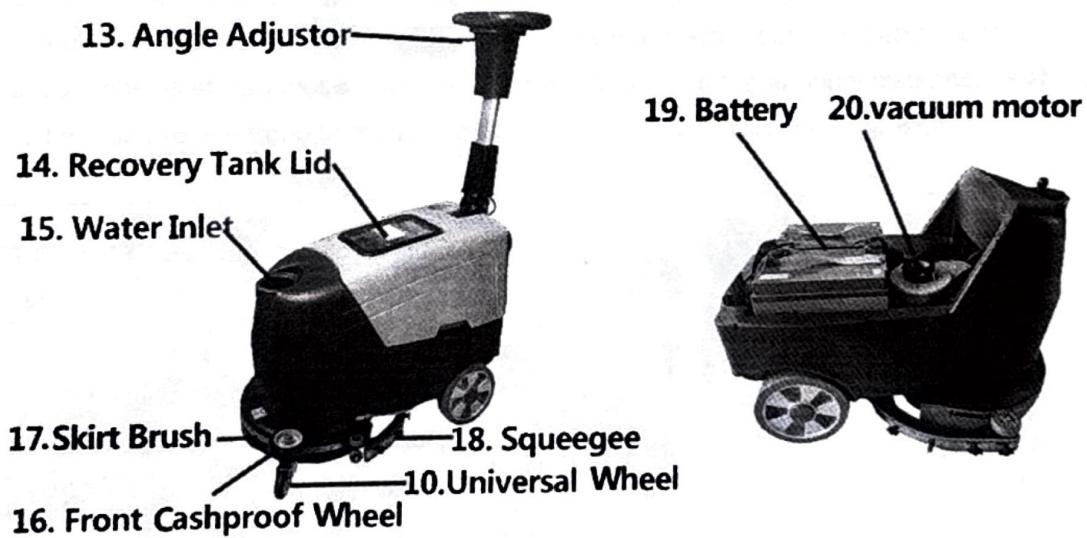
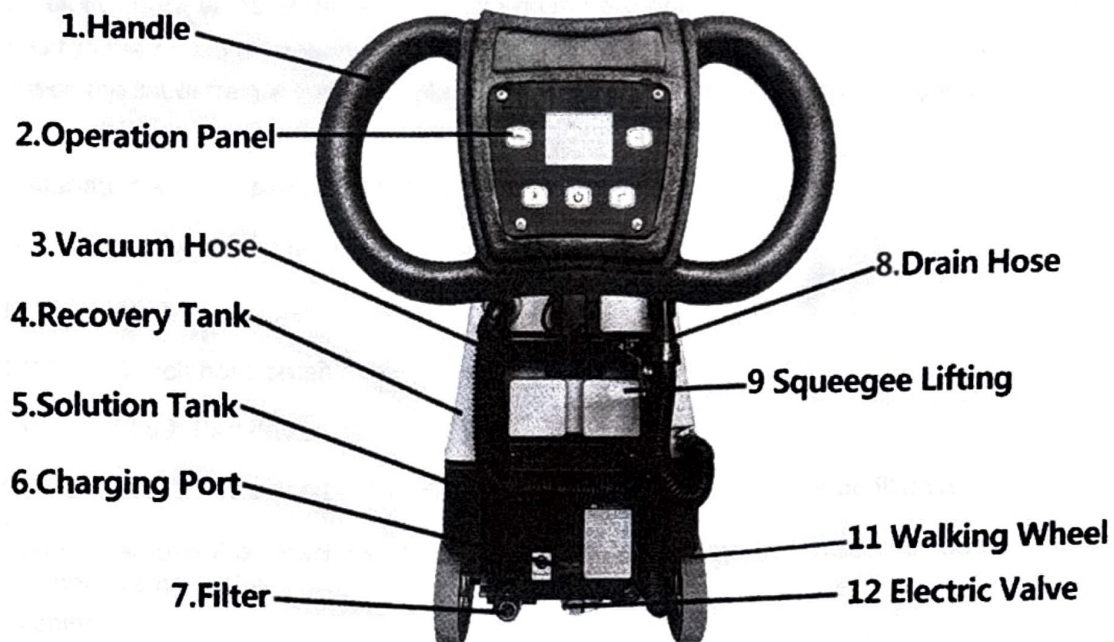
- Do not move parts, do not wear loose shirts or sleeves.
- Disconnect the battery wiring before operating the machine.
- Wear protective gloves and protective equipment when handling the battery or battery wiring.
- Avoid contact with the battery with liquid acid.
- Do not wash the machine with high pressure spraying or water pipe, which will cause electrical system failure.
- Use the replacement parts supplied or approved by the manufacturer.
- Wear gloves and eye protection devices when handling.
- All maintenance operations must be carried out by a qualified maintenance personnel
- Do not modify the original design of the machine.

6.When transport the machine with a truck or trailer. -

Empty the water tank before transportation.

- When load and unload the machine please use suggested tools.
- Take away the battery before transportation, Please carry the machine with the assistance of others.
- Power off the machine.
- Hold the machine with ropes,set hand brake (if equipped).

2. MACHINE COMPONENTS



(Fig. 1)

Note: Electric Type Not With Battery

3.MACHINE INSTALLATION

3.1.Open the machine package

- 1 Carefully check whether there is damage on the packing box. If there is damage, please report to the carrier immediately
2. Check the list of freight contents, please contact the dealer if missing something.

The standard spare parts of the machine:

2PCS* 52AH 24V Gel lead acid battery

1 PCS *24V 7AH charger

1 PCS *15 Inch hard brush

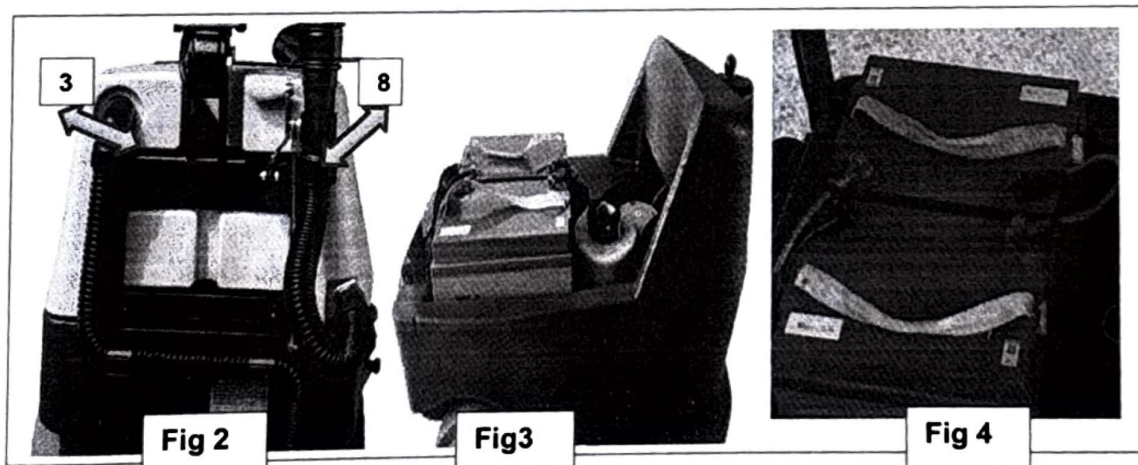
1 PCS*15 Inch Pad driver

1 PCS rubber , if you need red/white/black scouring pad need order additional.

3. Before remove the machine,remove the fixed parts from the machine pallet firstly,then remove the machine.

3.2.Install battery

- 1 .Park the machine on the flat ground and turn off the power key.
2. Move of 3 and 8,move of the recovery tank4 (Fig. 1). (Fig. 2).
3. Carefully place the battery in the battery compartment storeroom, and arrange the terminal columns as shown below. Connect the battery cable to the terminal columns, as shown below to the positive electrode in red and the negative electrode in black (Fig. 4).



3.3. Install the brush/pad driver

1. For the safety, please park the machine on a flat ground and turn off the key before you assemble the brush and pad driver.
2. Brush match the brush flange, then move the brush turn left, brush put on. If turn right side, brush will move off.

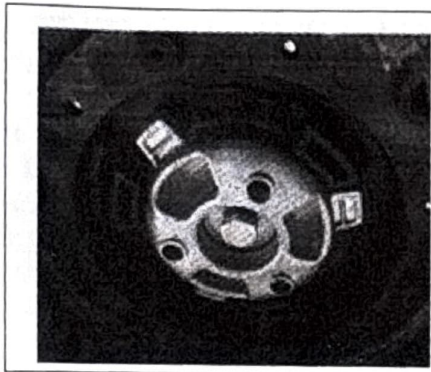


Fig 5



Fig 6

3.4 Add Cleaning Water

Add cleaning water in the cleaning tank Fig7, Fig8

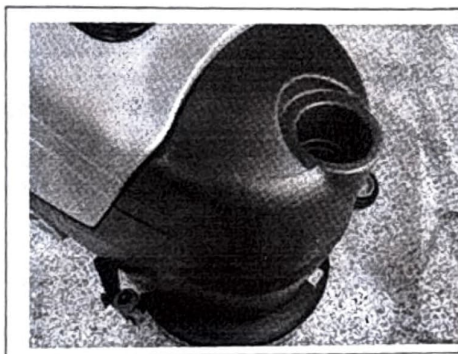


Fig7

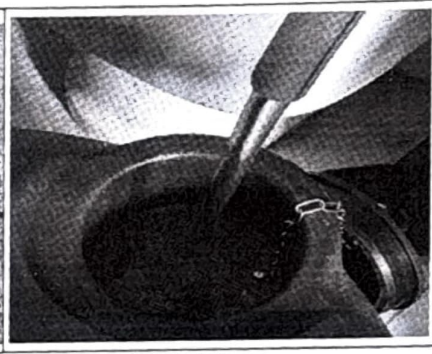


Fig8

Model	JL430B
Voltage	24V
Battery	52Ah *2pcs 12V Gel Battery
Cleaning tank	5.81 gallon
Recovery tank	6.6 gallon
Brush	15inch ,381mm
Squeegee dia. (with rubber)	560mm
Machine net weight (not with battery)	50KG
50Ah battery weight	12KG
Working efficient	1750SQM/H



4.MACHINE OPERATION

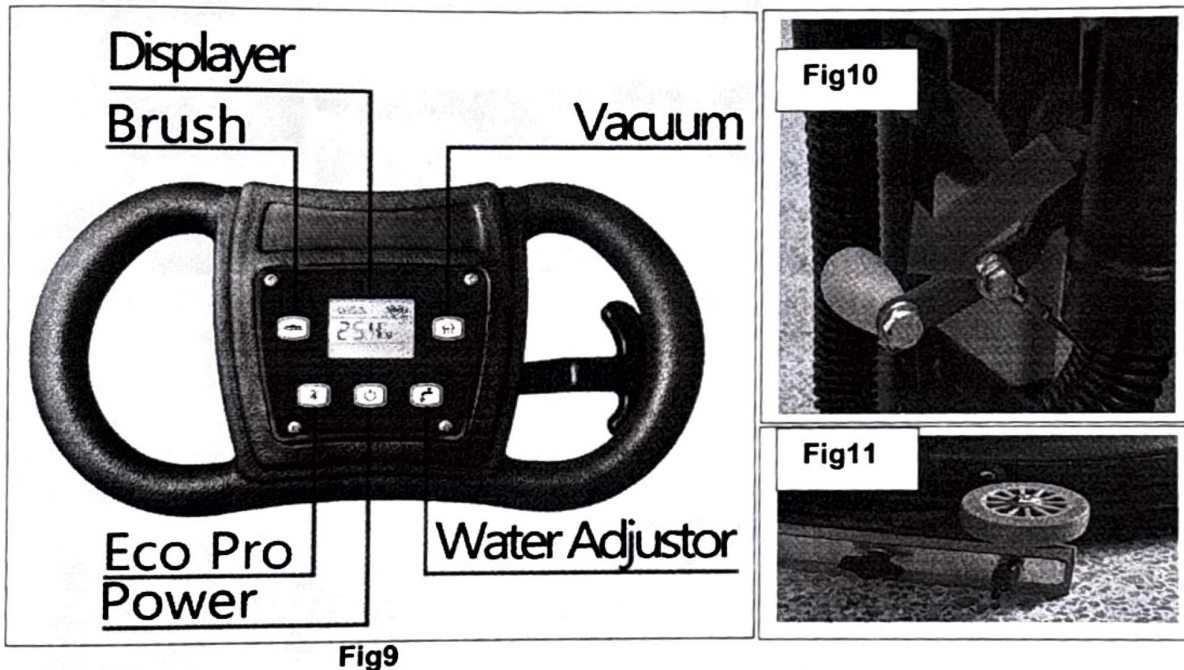
4.1. For the safety, please do not operate the machine before you reading and understand this operation manual.

1.Check before operation:

1. Clean the garbage on the ground.
2. Check battery power meter.
3. Check the abrasion of brush/pad driver/scouring pad.
4. Check the abrasion of squeegee rubber and adjust the angle appropriately.
5. Check the abrasion of skirt brush.

4.2. Start the machine

1. Turn on the power key switch  (figure 9)
2. Pull down the squeegee lifting switch (figure 10)(figure 11)
- 3.Adjust the water flow according to floor material and dust  (figure 9)
- 4.Turn on the vacuum ,brush machine can work now.
- 5.If you want to stop cleaning turn off brush then turn off vacuum.



4.3. During machine operation

For safety: when using the machine, please walk slowly and wear non-skid shoes.

1. Each wash path was overlapped by 5 cm.
2. Keeping machine running continuously to avoid damage to the ground.
3. If there is a drag mark on the ground after the water absorption, please wipe the tape with a rag to remove the garbage, and clean the area in advance to avoid the drag marks.
4. Do not operate the machine on slopes above a 5% slope.
5. If use high or low foam detergent , you must add the suggested defoamer into recovery tank,best use no foam detergent.
6. For extremely dirty ground, please use double cleaning method to clean, first raise the water suction up for cleaning, let the solution soak for 3-5 minutes, the water absorption down and clean here
7. When the staff leaves the machine, please remove the power key .

5. TANK DRAINAGE

5.1. Recovery tank drainage

Empty the recovery tank and clean it each time after using.

drain recovery tank

1. Mouth upward holding the drain hose take off hose cover and put down the hose for drainage. (Figure 12)Every Time when add cleaning water please discharge dirty water as well.
2. Disassemble and wash the floating filter in recovery tank when needed (Figure 13)
3. Wash the floating filter in recovery tank when needed. (Figure 14)

5.2. Solution tank drainage

Discharge the rest water in solution tank. Please remove the filter transparent lid. (Figure 15)



Fig12



Fig13



Fig14

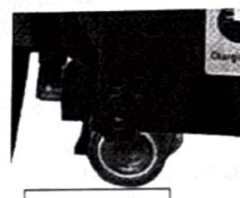


Fig15

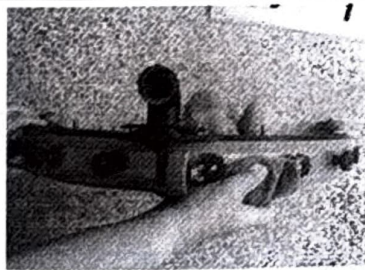


Fig 21

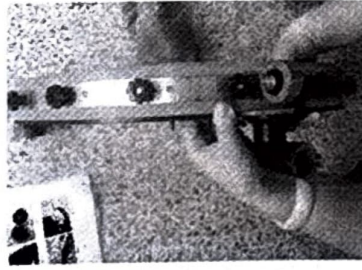


Fig 22



Fig 22

6. BATTERY CHARGING

The following charging instructions apply to the attached charger.

Note: in order to extend the application life of the battery, please ensure that the battery is full charged every time before use. At least every 2 months, machine need to be used finish the power (discharge all battery), then full charged it.

1. The battery charger is 24V 10A, which is applicable to the maintenance battery.
2. Move the machine to a well-ventilated place for charging ,it takes 7Hours to full charge the



3. It will take 7 Hours to full charge the battery. When the battery is full charged, turn on the key switch. The battery display like Fig 16.

4. When the Battery Display Comes to last line Fig 17, please move to charge .When the cleaning function is automatically closed, means battery all run out. Please charge the battery immediately.



Fig 16



Fig 17

7. THE MACHINE MAINTENANCE

Daily maintenance (Each time after using)

1. Empty and clean recovery tank (figure 18)
2. Disassemble and wash the floating filter in recovery tank (figure 19)
3. Empty the solution tank, and wash it with cold water, if use hot water the temperature is under 45°C.
4. Disassemble the scouring pad/brush for cleaning, please reverse or replace the scouring pad if abrasion. (Figure 20)
5. Scrub squeegee rubber (figure 21) put the squeegee on the raised position to prevent damage.
6. Check the abrasion for the edge of squeegee rubber. (Figure 22) the rubber lift time around 3-4 months.
7. Wipe the machine with a multipurpose cleaner and a wet cloth. (Figure 22) For safety reasons, **do not** flush the machine with high-pressure spraying or water hose when cleaning the machine. This will cause an electrical system failure.
8. Check the wear condition of the skirt edge of the brush head, and please replace it if there is any loss or damage. (Figure 22)

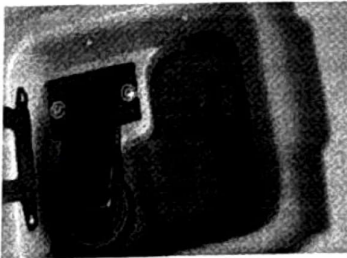


Fig 18



Fig 19

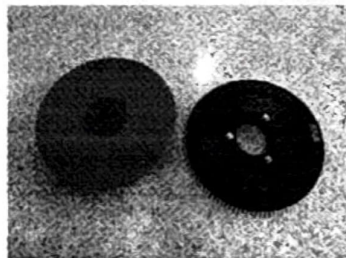


Fig 20

8.MAINTENANCE IN EVERY MONTH

Monthly maintenance

1. Take off the solution tank filter from the machine and clean it (figure 23) Make sure empty the solution tank before you take off the filter.
2. Check the top of battery to avoid electric corrosion.
3. Check if battery connecting wires loosened
4. Check and clean recovery tank cover (figure 24) replace it if broken.
5. Smear a layer of waterproof lubricating oil on all shafts.
6. Check whether the nuts and bolts on the machine are loose.

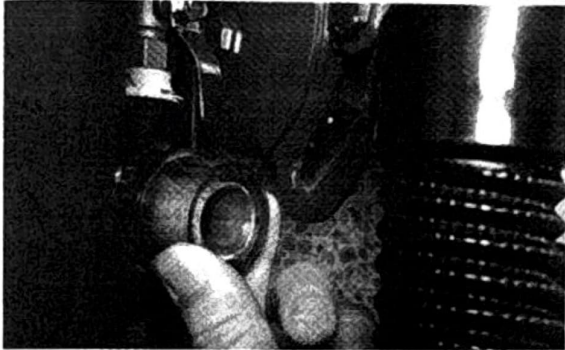


Fig23



Fig24

9.MOTOR MAINTENANCE

If you need to change carbon brush or motors, contact The Floor Scrubber service center.
Warning: Please turn off the power key before maintaining or repair the machine.

Replace carbon brush	hours
Drive type motor	750
Vacuum motor	750
A brush motor	750

Warning: Electric shock hazard, please disconnect the battery before maintaining the machine

10. THE REPLACEMENT OF THE SQUEEGEE RUBBER

Each squeegee lip has four blade edges, and when the strip is worn, only replace the two sides of the tape and use the other side of the intact scraper edge. If the four edges are worn, please replace the tape.

1. Remove the absorbent components from the machine.
2. Loosen the adhesive tape clamping clip and remove the squeegee lip from the suction component (Fig. 25).
3. Replace the back strip to the new blade and then reload it, ensure that the clamping end of the notch is downward.
4. If you want to change the tape, please remove the rear belt and loosen the knob completely, but do not unload the knob. Pull up and adjust the positioning plate to show their former strip (figure 26) will strip before changing into a new blade edge, and then back to the positioning plate, ensure that position into the strip plate

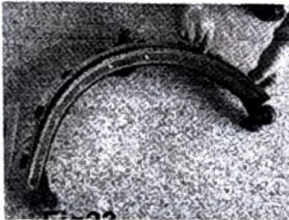


Fig 25

Fig25

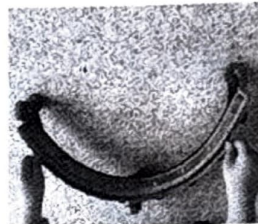


Fig26

11. RUBBER ADJUSTMENT

The adjustment of the suction strip is set by the factory, no further adjustment is required, only adjustment should be made when the suction is removed.

In order to maximize the effect of the suction strip, the foot wheel of the suction component must be adjusted to a specific height according to the following instructions.

1. Check whether grided suction components need to be adjusted, grided suction components can be removed from the machine and placed on level ground, measuring the distance between castor with ground, measuring the distance should be about 2 mm (Fig. 27).
2. To adjust the height of castor, please loosen the nut at the top and remove the plastic bearing cover, to make the adjustment nut out, turn the adjusting nut until it is highly appropriate (Fig. 28) After the adjustment, the top of the lock nut and replace the plastic bearing cover. Repeat these steps to adjust the other casters.
3. After the wheel has been properly adjusted, the suction strip shall be bent at the time of the operation of the machine.



Fig27

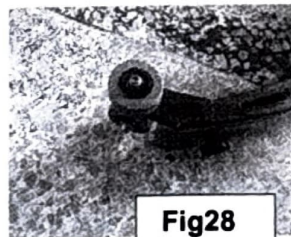


Fig28

12. TROUBLESHOOTING

Problem	Reason	Solution
Machine can't be operated	The ring is not pulled	Pull start ring handle
	The battery is dead	Charge the battery
	The battery failed	Replace the battery
	The cable is loose	Tighten the battery connection
	The main fuse blew out	Replace the fuse
The charger does not work	The plug is not connected to the power	Check plug connection
	Failure of the charger fuse	Replace the charger fuse
	Detect failure	Refer to the error code of the on board battery charger
The brush motor does not work	Rise brush head from the ground	Lower brush head
	The battery meter locks the boot	Charge the battery
	Brush motor circuit breaker trigger jump power	Reset the brush circuit breaker button
	Brush head (up/down) failure	Please contact the service center
	Boot handle switch failure	Please contact the service center
	Brush motor or wiring fault	Please contact the service center
	Motor Carbon brush wear	Please contact the service center
	Loose or worn brush belt	Replace the brush belt
Suction motor does not work	Main fuse blown	Replace the 30A fuse
	Relay switch fault	Please contact the service center
	Drive motor or wiring fault	Please contact the service center
	Motor Carbon brush wear	Please contact the service center

Little or no water	water strainer or solution tube is blocked	Clean water strainer or solution tube
	Solution valve is blocked	Remove the valve to clean up
	Flow control knob flow rate is low	Adjust flow control knob
	Loosen the screw of the control knob	Adjust the knob ,then lock the screw
The recycling of sewage is inefficiency	The sewage tank is full	Drain sump
	Unclip drain cover	Close the drain cap
	Floating filter screen in sewage box is blocked	Clean the filter
	Suction block obstruction	Clean Suction block obstruction
	Suction Rubber strip is wear	Replace Suction Rubber strip wear
	Suction Rubber strip can not be bent properly	Adjust the height of suction rubber strip
	Loosen the vacuum pipette joint	Fastening straw joint
	Vacuum pipette is damaged	Replace the vacuum pipette
	The sewage tank lid is not covered	Close the drain cap
	Recovery tank cover seals damaged	Replace seals
	Vacuum motor fault	Please contact the service center
The running time is shorter	The battery is not enough	Full the battery
	Replace new battery	Replace the battery
	The battery need maintenance	Refer to 'battery maintenance'
	Battery charger fault	Repair or replace battery charger
	The brush pressure lever is positioned at the top of the brush head	Lower the brush pressure lever