



www.icecompanies.com

Operator & Parts Manual

Automatic Scrubber



I28BT
I32BT

The Peoples
COMPANY

8210003
REV.03(01-2015)

INTERNATIONAL CLEANING EQUIPMENT



READ OPERATOR MANUAL CAREFULLY!

IMPORTANT: To ensure full warranty protection, please fill out & return your warranty card.

Please fill out at time of installation for future reference.

Model No. _____

Serial No. _____

Machine Options _____

Sales Rep. _____

Sales Rep. Phone No. _____

Customer ID Number _____

Installation Date _____

HOW TO ORDER PARTS

Only use ICE Company supplied or equivalent parts. Parts and supplies may be ordered online, by phone, by fax or by mail.

1. Identify the machine model.
2. Identify the machine serial number from the data label.
3. Ensure the proper serial number is used from the parts list.
4. Identify the part number and quantity.
Do not order by page or reference numbers.
5. Provide your name, company name, customer ID number, billing and shipping address, phone number and purchase order number.



PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components such as batteries, hazardous fluids, including antifreeze and oil, in an environmentally safe way according to local waste disposal regulations.



Always remember to recycle.

International Cleaning Equipment

XiangShi Road LiaoBu DongGuan GuangDong China

Tel: 0769 - 81850061

Fax: 0769 - 81850001

Specifications and parts are subject to change without notice.

TABLE OF CONTENTS / 目录

| | |
|-----------------------------------|-------|
| SAFETY PROCATIONS..... | 4 |
| MACHINE COMPONENTS..... | 5 |
| MACHINE SETUP & INSTALLATION..... | 6 |
| MACHINE OPERATION..... | 7 |
| WHILE OPERATING MACHINE..... | 7 |
| TANK DRAINING..... | 8 |
| BATTERY CHARGING..... | 9 |
| PREVENTATIVE MAINTENANCE..... | 9 |
| BASIC TROUBLESHOOTING..... | 11 |
| TECHNICAL SPECIFICATION..... | 12 |
| PARTS LIST/ 零件清单 | 13-30 |
| WEAR AND TEAR PARTS/ 易损件清单 | 31 |
| 安全预防 | 32 |
| 机器组件 | 33 |
| 机器调试与安装 | 34 |
| 机器操作 | 35 |
| 机器操作过程中 | 35 |
| 水箱排水 | 36 |
| 电瓶充电 | 36 |
| 维护与保养 | 37 |
| 故障排除 | 38 |
| 技术参数 | 39 |
| WIRING DIAGRAM / 电路图 | 40 |

SAFETY PRECAUTIONS

This machine is intended for commercial use. It is designed exclusively to scrub hard floors in an indoor environment and is not constructed for any other use. Only use recommended accessories.

All operators shall read, understand and exercise the following safety precautions:

1. Do not operate machine:

- Unless trained and authorized.
- Unless you have read and understand the operators manual.
- In flammable or explosive areas.
- If not in proper operating condition.
- In outdoors areas.

2. Before starting machine:

- Make sure all safety devices are in place and operate properly.

3. When using machine:

- Go slow on inclines and slippery surfaces.
- Follow all safety guidelines.
- Be very careful when using the machine in reverse.
- Reduce speed when turning.
- Report and fix any damage to machine prior to operating it.
- Never allow children to play on or around.
- Do not operate on inclines that exceed 5% (3°).

4. Before leaving or servicing machine:

- Stop on level surface.
- Turn off machine.

5. When servicing machine:

- Read operators manual thoroughly prior to operating or servicing this machine.
- Use manufacturer supplied or approved replacement parts.
- Secure machine with wheel blocks prior to jacking the machine up.
- Use approved jack or hoist to safely elevate the machine.
- Disconnect batteries prior to working on machine.
- Wear gloves when handling batteries or battery cables.

- Avoid any contact with battery acid
- Avoid moving parts. Do not wear loose fitting clothing while servicing machine.



WARNING: Batteries emit hydrogen gas. Explosion or fire can result from hydrogen gas. Keep sparks and open flames away! Keep battery compartment open when charging.

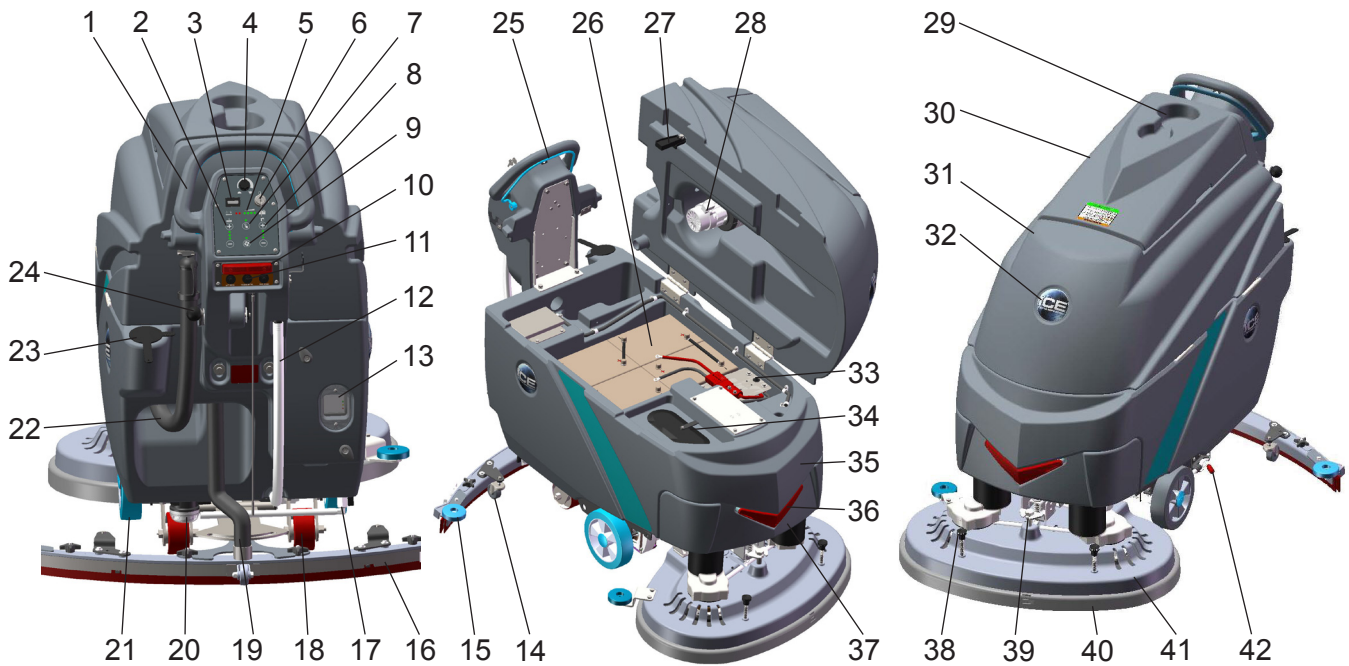





WARNING: Flammable materials can cause an explosion or fire. Do not use flammable materials in tanks.



WARNING: Flammable materials or reactive metals can cause explosion or fire. Do not pick up.

MACHINE COMPONENTS



- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Control Handle 2. Brush pressure adjusting buttons & indicator light <input type="checkbox"/> + Brush pressure increase button <input type="checkbox"/> - Brush pressure decrease button 3. Hour meter 4. Speed Control Knob  Slow Speed  Fast Speed 5. Battery Meter 6. Main Power Key Switch 7. 1-STEP scrub head up/down switch & indicator light 8. Solution flow Control Buttons & Indicator Light <input type="checkbox"/> + Solution flow Increase button <input type="checkbox"/> - Solution flow Decrease button 9. Vacuum Motor Switch & Indicator Light 10. Emergency stop button 11. Drive motor circuit breaker 12. Solution Tank Level / Drain Hose 13. On-board battery charger 14. Caster, 2Inch, Squeegee Adjustment 15. Bumper Rollers 16. Squeegee Assembly 17. Ball Valve | <ol style="list-style-type: none"> 18. Casters, 4 Inch 19. Squeegee Vacuum Hose 20. Filter Assembly 21. Wheels, 8 Inch 22. Recovery Tank Drain Hose 23. Hose fill-port 24. Squeegee Lift Lever 25. Control Handle Start Bail  Direction Decal 26. Batteries 27. Recovery Tank Support Stand 28. Vacuum Motor, 24VDC 29. Cup Holder 30. Recovery Tank Cover 31. Recovery Tank 32. ICE Logo 33. Vacuum motor circuit breaker 34. Bucket Fill Port/ Clean-Out Port 35. Solution Tank 36. LED Light 37. Front cover 38. Brush & Pad release plunger 39. Scrub Head adjusting bolt 40. Scrub Head Skirt 41. Scrub Head Assembly 42. Parking Brake (Option) |
|--|--|

MACHINE SET UP & INSTALLATION

UNCRATING MACHINE

Be sure and check packing carton for any damage. Immediately report any damage to carrier. Check the contents of package to ensure that the following items are included:

- Machine
- 4-6V Batteries
- Squeegee assembly
- 2-Pad Drivers
- 2-Brushes

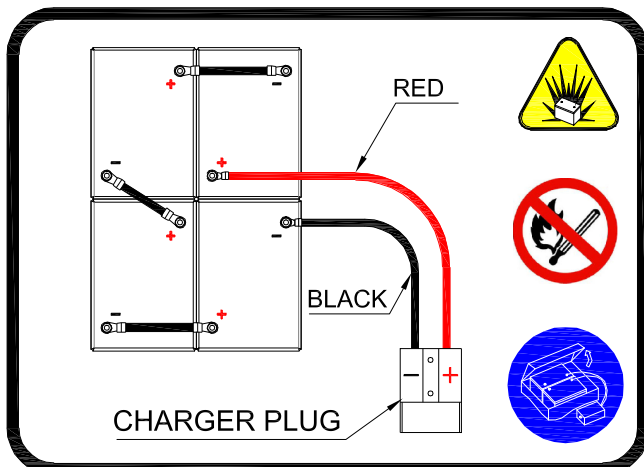
INSTALLING BATTERIES

The batteries are already in the machine upon delivery; However you will need to connect the cables to the battery posts.

⚠ WARNING: Batteries emit hydrogen gas. Explosion or fire can result from hydrogen gas. Keep sparks and open flames away! Keep battery compartment open when charging.

Recommended Battery spec:
4-6V, 260AH@20HR deep cycle batteries.
Max. batteries dimensions :
265mm (L) X 190mm (W) X 280mm (H)

1. Turn the main power key switch off.
2. Open recovery tank to gain access to battery compartment.
3. Carefully place the batteries into the compartment as shown in figure below. Place the battery brace at the rear of the batteries.
DO NOT DROP BATTERIES INTO COMPARTMENT!
4. Connect battery cables to posts in numbered order as shown in drawing below.
RED to POSITIVE and BLACK to NEGATIVE.



MACHINE SET UP

PRE-OPERATION CHECKS

1. Sweep or dust mop the surface to be cleaned.
2. Check battery meter to make sure batteries are fully charged. (See BATTERY CHARGING)
3. Check that squeegee is properly installed.
4. Check that brushes / pads is properly installed.

INSTALLING BRUSHES OR PADS

1. Turn off the 1-STEP Scrub head up/down switch (see machine components, item #7) and Raise the Scrub head off the floor, then stop machine on the level surface, remove the key and ensure the machine is turned off.
2. If using the Pad Driver, first attach the appropriate pad to the pad driver surface.
3. Align the pad driver or brush under the motor hub and push it upward to engage.



4. To remove the pad driver or brush, raise the scrub head and push the pad release plunger (see machine components, item #38) downward.

MOUNTING THE SQUEEGEE ASSEMBLY


1. Lift the squeegee lift lever (see machine components, item #24) to the upward position.
2. Mount the squeegee assembly to the squeegee pivot bracket. make sure the knobs are completely seated into the slots before securing knobs.
3. Connect the vacuum hose to the squeegee assembly. Loop the hose by using the hose clip provided.
4. Check the squeegee blades for proper adjustment.

FILLING THE SOLUTION TANK


The machine is equipped with a hose fill-port (see machine components, item #23) at the rear of the machine, and a bucket fill-port (see machine components, item #34) located under the recovery tank. Before accessing the bucket fill-port make sure that the recovery tank is empty.

Fill the solution tank to the "100L" level on the solution tank sight gauge. When using the bucket fill-port, stop filling when the level reaches the bottom edge of the fill-port.

NOTE: When filling the solution tank with a bucket, make sure that the bucket is clean. Do not use the same bucket for filling and draining the machine.

 **WARNING: Do not put any flammable materials into solution tank. this can cause an explosion or a fire. Only use recommended cleaning chemicals. Contact your janitorial supply distributor for recommendations on proper chemicals.**

MACHINE OPERATION

 **WARNING: Do not operate machine unless you have read and understand this manual.**

1. Turn the main power key switch(see machine components, item #6) to the on (I) position.
2. Check the battery level meter (see machine components, item #5), if the battery meter is in the red, **DO NOT** continue to operate the machine and recharge the batteries immediately.
3. Turn on the 1-STEP scrub head up/down switch (see machine components, #7) to lower the scrub head to the floor, the 1-STEP switch indicator is light.
4. Lower squeegee assembly to the floor by lowering the squeegee lift lever(see machine components, item #24).
5. Check the solution flow indicator (see machine components, item #8), adjust the solution flow control switch to a desired flow rate.


NOTE: Solution will not begin to flow until the control handle bail is pulled.

6. Turn on the vacuum motor switch(see machine components, item #9).
7. Pull the control handle bail (see machine components, item #25) backwards to start scrubbing .The machine will automatically propel forward. To reverse the machine, simply push the control handle bail forward.
NOTE: Raise squeegee when reversing machine.
8. The scrubbing speed can be adjusted, Adjust the speed control knob (see machine components, item #4) to a desired speed.
NOTE: 45-60 meters (150-200 ft)per minute is the recommended scrubbing speed.
9. simply press the pressure adjusting button to increase (+) or decrease (-) the brush pressure as needed.
10. To stop scrubbing, release the control handle bail, turn off the 1-STPE switch to raise the scrub head assembly, raise the squeegee assembly.


WHILE OPERATING MACHINE

 **WARNING: Fire Or Explosion Hazard. Do Not Pick Up Flammable Materials Or Reactive Metals.**

1. Go slow on inclines and slippery surfaces. Do not operate the machine on inclines that exceed 5% (3°).
2. Do not keep the machine in the same position with pad / brush spinning, keep the machine moving to prevent damage to floor finish.
3. If the squeegee assembly leaves streaks on the floor, raise the squeegee off the floor and wipe the blades down with a damp cloth. Pre-sweep the area to prevent leaving streaks on the floor.
4. Pour a recommended defoamer into the recovery tank if excessive foam appears.

 **WARNING: Do not allow foam to enter the float shut-off screen, vacuum motor damage will result. Foam will not activate the float shut-off screen.**

5. Occasionally check the battery level meter(see machine components, item #5). when meter is in the red, stop scrubbing and recharge the batteries.

 **WARNING: When battery meter is in the red, do not continue to operate the machine. Battery damage may result.**

6. When the solution tank runs empty, press the 1-STEP switch raise the brush head. Keep the squeegee down and continue to vacuum until all the dirty water is picked up.

NOTE: *Brush motors will not work when the scrub head assembly raised.*

NOTE: *See **TANK DRAINING** section to learn how to drain recovery and solution tanks.*

CIRCUIT BREAKER / FUSES

The machine is equipped with 2 resettable circuit breakers(see machine components, item #11, item# 33) to protect the drive motor and the vacuum motor from damage. If the circuit breakers should trip, it can't be reset immediately. You must first determine what caused the breaker to trip, and allow the motor to cool down and then you can manually reset the circuit breakers.

The machine is also equipped with a 60A fuse to protect the brush motors from damage. When replacing a fuse never substitute a higher Amps rated fuse than specified.

HOURLY METER

The hour meter (see machine components, item #3) records the number of total hours the brush motor has been powered on. Use the hour meter to determine when to perform recommended maintenance procedures and to record service history.

EMERGENCY STOP BUTTON/ BRAKE

The machine is equipped with an Electromagnetic Brake Mechanism on the Transaxle. When in case of Emergency, release the Control Handle bail(see machine components, item #25) or strike the Emergency stop button (see machine components, item #10), the machine will be braked and then stop. Reset the emergency stop button, turn on the Main power key switch, and then pull the control handle bail, the machine will be restart.

NOTE: *The machine can not be moved unless the Main Power Key Switch and the Control Handle bail be turned on.*



WARNING: Do Not Change the Default Settings of the Electromagnetic Brake Mechanism unless Authorized, otherwise it may cause Machine Damage or Personal Injury. Contact the Authorized Service center for machine repairs.

TANK DRAINING

1. Turn the machine off.
2. With the squeegee and scrub head in their "up" position, transport machine to approved area for draining tank(s).

DRAINING THE RECOVERY TANK

Any time scrubbing is completed, or when refilling solution tank, the recovery tank should be drained and cleaned.

! WARNING: If the recovery tank is not drained when the solution tank has been refilled, foam or water may enter the float shut-off screen and cause damage to the vacuum motor.

1. While holding the drain hose (see machine components, item #22) upward, remove the cap and lower hose to drain.
2. Open the recovery tank cover and rinse out the tank. Use a rag to remove any excess dirt.
3. Clean the float shut-off screen and debris tray located in the recovery tank .

DRAINING THE SOLUTION TANK

Any time scrubbing operation is completed, the solution tank should be drained and cleaned.

1. Pull the solution tank level hose(see machine components, item #12) off the hose fitting, this will allow the solution to flow freely into a bucket or floor drain.
2. Remove the cover of the filter assembly(see machine components, item #20) to drain the solution tank, check the filter screen and clean up it if necessary.
3. Rinse the solution tank with clean water after every use. This will help prevent chemical buildup and clogging of the solution lines.
4. After rinsing out the tank, securely reconnect the tank level hose to the hose fitting, replace the filter assembly cover and be sure the filter screen and the "O" ring is in the correct position.

BATTERY CHARGING



WARNING: Fire Or Explosion Hazard.

Batteries Emit Hydrogen Gas. Keep Sparks and Open Flame Away. Keep Battery Compartment Propped Open When Charging.

NOTE: Use only approved chargers with the following specifications:

- Automatic shut off circuit
- Deep cycle charging
- Output current of 20-30 Amps
- Output voltage of 24 volts

ON-BOARD BATTERY CHARGER

As standard configuration, the machine is equipped with the On-board battery charger (see machine components, item #13). The settings of On-board battery charger had been set for the recommended batteries type.



WARNING: The On-board battery charger setting's change are to be completed by authorized service centers only. Failure to properly set will result in the batteries or charger damage.

1. Transport the machine to a well ventilated area.
2. Turn the machine off.
3. If charging wet (lead acid) batteries check the fluid level before charging.
4. Prop up the recovery tank by the support stand (see machine components, item #27) for ventilation.
5. Connect the charger's AC power supply cord to a properly grounded receptable.
6. The charger will automatically begin to charge, once the charging cycle begins, the indicator lights will progress from red, yellow to green. when the green indicator light comes on, the charging cycle is done. Unplug the charger cord.

NOTE: The machine will can not operate when charging.

OFF-BOARD BATTERY CHARGER (OPTION)

1. Place charger and machine in a well ventilated area.
2. Turn the machine off.

3. If charging wet (lead acid) batteries check the fluid level before charging.
4. Prop up the recovery tank by the support stand (see machine components, item #27) for ventilation.
5. Connect the charger's AC power supply cord to a properly grounded receptable.
6. Connect the charger's DC cord into the machine's battery receptacle at the rear of the machine.
7. The charger will automatically begin to charge and will autoatically shut off once the batteries are fully charged.
8. Upon completion of charging, disconnect the AC power supply cord first, and then disconnect the charger from the machine.

PREVENTATIVE MAINTENANCE



WARNING: Before performing any maintenance on the machine, be sure that the power is turned off, or the batteries are disconnected!



WARNING: Repairs are to be completed by Authorized service centers only. Any repairs completed by unauthorized persons will avoid the warrenty.

DAILY MAINTENANCE

1. Remove pad driver/ brush and clean with approved cleaner.
2. Drain recovery and solution tanks completely and rinse out with clean water. Visually check the recovery tank for debris and clean out as necessary.
3. Raise the squeegee assembly off floor and wipe it down with a damp towel. Be sure to store the squeegee in the up position.
4. Remove the float shut-off assembly and rinse it out with clean water.
5. Clean machine with an approved cleaner and a damp towel.
6. Recharge the batteries.
7. Check the condition of the squeegee blade wiping edge, rotate blade if worn.

MONTHLY MAINTENANCE

1. Clean the battery tops to prevent corrosion.
2. Check for loose battery cable connections.
3. Inspect and clean the recovery tank cover seal. Replace it if damaged.
4. Lubricate all grease points and pivot points with silicon spray and approved grease.
5. Check the machine for loose nuts and bolts.
6. Check the machine for leaks.

MOTOR MAINTENANCE

1. Contact your local Distributor for any motor maintenance.
2. Motor should have the brushes checked every 250 hours. Brushes should be replaced when they are worn to a length of 10 mm or less.

BATTERY MAINTENANCE



WARNING: Batteries emit hydrogen gas and an explosion or fire can result. Keep sparks and fire away from batteries at all times.



WARNING: Whenever servicing batteries, be sure to wear protective gloves. Avoid contact with battery acid at all times.

NOTE: For the best machine performance, keep batteries charged at all times. Do not let them sit in a discharged condition.

1. Always follow the battery charging directions as outlined in the BATTERY CHARGING section of this manual.
2. Keep battery tops and terminals free from corrosion. A strong solution of baking soda and water is the best way to keep the batteries corrosion free. **DO NOT ALLOW THE BAKING SODA / WATER SOLUTION TO ENTER THE BATTERY CELLS.**
3. Use a wire brush with the baking soda solution to properly clean the battery posts and connections.
4. Check battery connections for wear and loose terminals. replace if necessary.

MACHINE STORAGE

1. Always store the machine indoors.
2. Always store the machine in a dry area.
3. Always store the machine in its upright position.
4. Always store the machine with the pad driver/brush raised off the floor.
5. Always store the machine with the squeegee assembly raised off the floor.
6. If storing in an area which may reach freezing temperatures, be sure to drain all fluids from the machine prior to storage. Any damage caused by freezing temperatures will not be covered by the warranty.
7. Drain the recovery tank.
8. Drain the solution tank of all fluid.

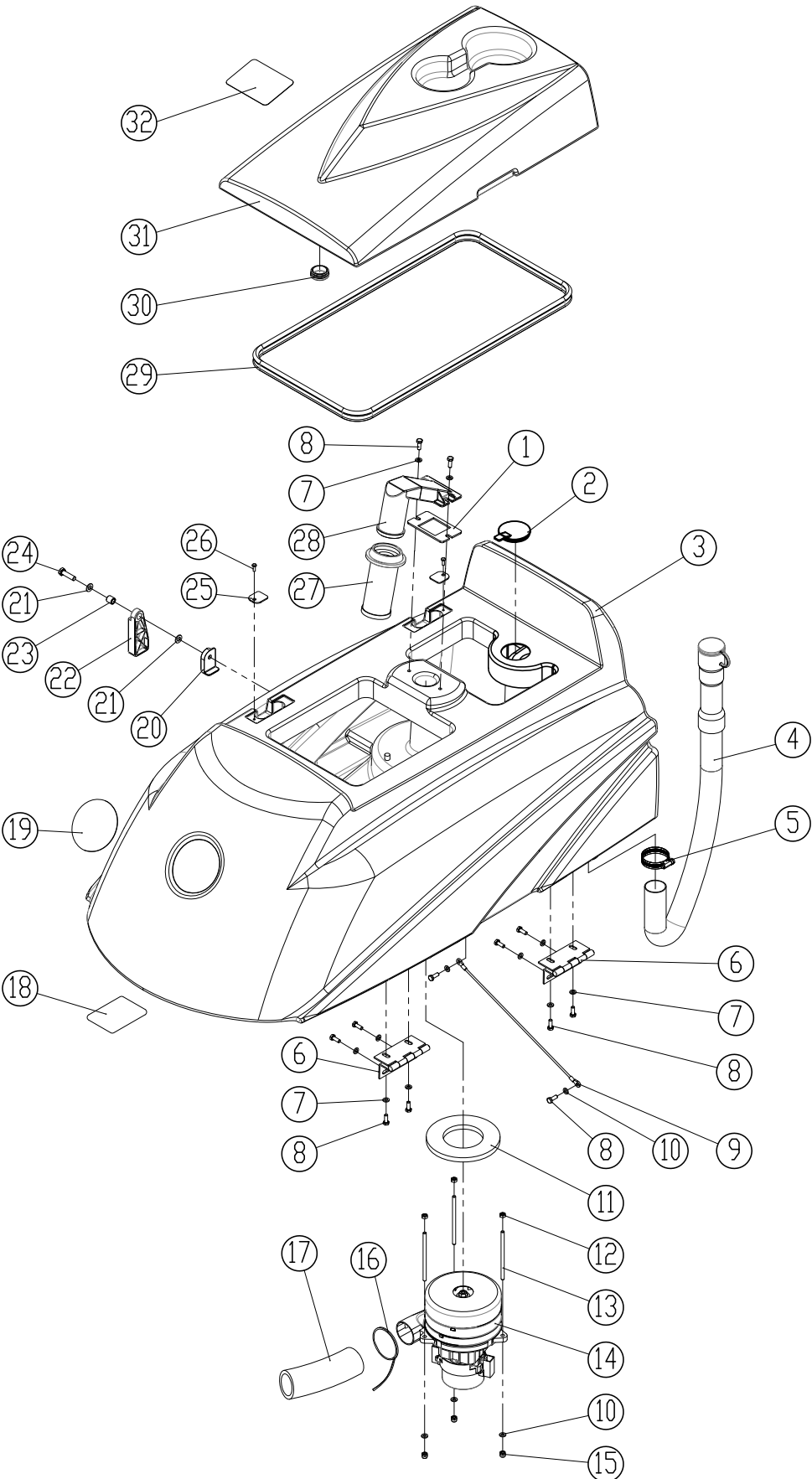
BASIC TROUBLESHOOTING

| PROBLEM | CAUSE | SOLUTION |
|-------------------------------|---|---|
| Machine will not operate | Control handle bail not pulled | Pull control handle bail |
| | Batteries need to be charged | Charge batteries |
| | Bad battery(s) | Replace battery(s) |
| | Loose battery cable | Tighten loose cable |
| | Emergency stop button activated | Reset Emergency stop button |
| | Main PCB fuse blown | Contact ICE service center |
| | Faulty key switch | Contact ICE service center |
| Brush motor will not operate | 1-STEP scrub head up/down switch is off | Turn on the 1-STEP switch |
| | Battery meter lockout activated | Recharge batteries |
| | Brush motor fuse blown | Replace 60A fuse |
| | Brush motors over load | Turn on / off the 1-STEP switch |
| | Faulty control handle bail switch | Contact ICE service center |
| | Faulty brush motor or wiring | Contact ICE service center |
| | Worn Motor carbon brushes | Contact ICE service center |
| | Bad solenoid | Contact ICE service center |
| Machine does not propel | The Main Power Key Switch be Turned off, the Control handle bail not pulled | Turn on the Key switch, Pull the control handle bail |
| | Tripped drive motor circuit breaker | Reset drive motor circuit breaker button |
| | Faulty transaxle motor or wiring | Contact ICE service center |
| | Worn Motor carbon brushes | Contact ICE service center |
| Vacuum motor will not operate | Tripped vacuum motor circuit breaker | Reset vacuum circuit breaker button |
| | Faulty vacuum motor or wiring | Contact ICE service center |
| | Worn Motor carbon brushes | Contact ICE service center |
| Little or no solution flow | Ball valve set too low or shut off | Turn on the ball valve |
| | Solution flow control knob set too low or shut off | Adjust solution control flow knob |
| | Clogged solution tank filter or solution hose | Clean solution tank filter or flush out solution hose |
| | Clogged solution Solenoid valve | Remove valve and clean |
| Poor water pick up | Recovery tank is full | Drain recovery tank |
| | Loose drain hose cap | Tighten cap |
| | Clogged float shut-off screen located in recovery tank | clean screen |
| | Clogged squeegee assembly | Clean squeegee assembly |
| | Worn squeegee blades | Replace or rotate squeegee blades |
| | Incorrect squeegee blade deflection | Adjust squeegee blade height |
| | Loose vacuum hose connections | Secure hose connections |
| | Clogged vacuum hose | Remove clogged debris |
| | Damaged vacuum hose | Replace vacuum hose |
| | Recovery tank cover not in place | Properly position cover |
| | Damaged recovery tank cover seal | Replace seal |
| | Faulty vacuu motor | Contact ICE service center |
| Short run time | Low battery charge | Fully recharge batteries |
| | Defective batteries | Replace batteries |
| | Batteries need maintenance | See BATTERY MAINTENANCE |
| | Faulty battery charger | Repair or replace battery charger |
| | Down pressure lever is set for extra scrub head pressure | Lower down pressure lever |

TECHNICAL SPECIFICATIONS

| MODEL | I28BT | I32BT |
|--|--|-----------------------|
| DIMENSIONS L X W X H | 1550 X 775 X 1130 mm | 1580 X 865 X 1130 mm |
| WEIGHT | 160 Kg | 170 Kg |
| WEIGHT with BATTERIES | 300 Kg | 310 Kg |
| SOLUTION TANK CAPACITY | 100 L / 26.5 Gal | |
| RECOVERY TANK CAPACITY | 120 L / 31.5 Gal | |
| SQUEEGEE WIDTH | 1185 mm / 46.5 in | |
| CLEANING PATH WIDTH | 700 mm / 28 in | 800mm / 32 in |
| PRODUCTIVITY RATE | 2850 m ² h | 3250 m ² h |
| DRIVE SYSTEM | Transaxle, 24VDC, 200W | |
| TRAVEL SPEED, MAXIMUM | Cleaning: 65m/Min Transporting: 72 m/Min | |
| MINIMUM ALSLE TURN | 1600mm | |
| PAD/BRUSH PRESSURE | 18kg / 36kg / 54kg | |
| SOLUTION FLOW RATE | 0 ~ 1400ml/Min | |
| BRUSH MOTOR | 24VDC 650W | |
| VACUUM MOTOR | 24VDC 600W | |
| WATER LIFT - AIR FLOW | 65 in | |
| BATTERIES | 4 - 6V, 260AH @ 20 hr | |
| RUN TIME PER CHARGE | 4 Hours | |
| VOLTAGE DC | 24V | |
| DECIBEL RATING AT OPERATOR'S EAR, INDOORS | 68 dB(A) | |
| GRADE LEVEL, MAX | 5% (3°) | |

RECOVERY TANK GROUP / 污水箱组件

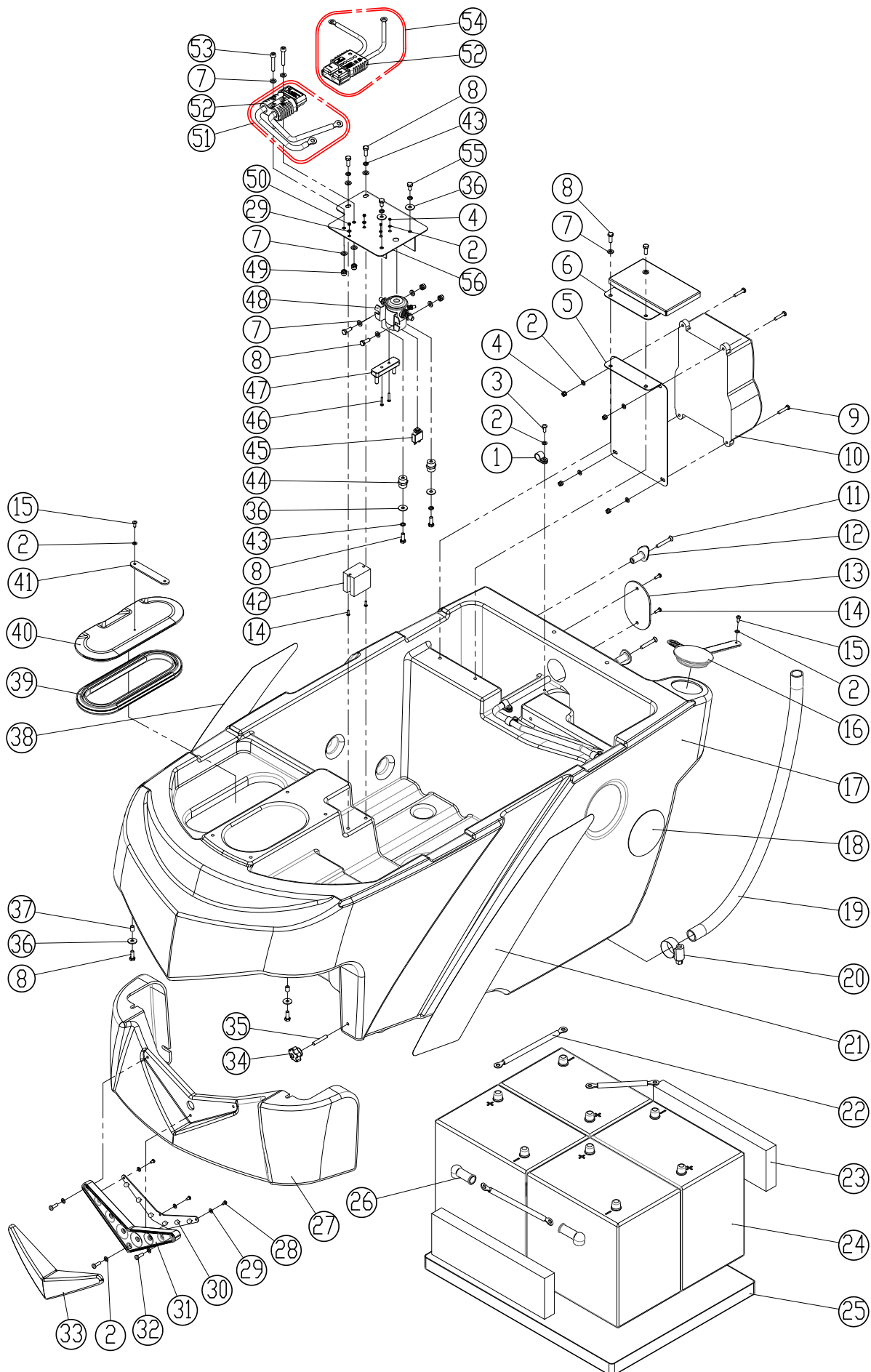


PARTS LIST / 零件清单

RECOVERY TANK GROUP / 污水箱组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|---------------------------------|-----------------------|----------|
| 1 | 8111001 | GASKET | 密封垫 | 1 |
| 2 | 8131003 | CAP | 封堵 | 1 |
| 3 | 8210102 | RECOVERY TANK | 污水箱 | 1 |
| 4 | 8131010 | DRAIN HOSE | 放污管组件 | 1 |
| 5 | 1962050 | CLAMP | 喉箍 27-51mm | 1 |
| 6 | 8111300 | HINGE ASSEMBLY | 铰链组件 | 2 |
| 7 | 1421618 | FLAT WASHER M6×18×1.6 | 平垫圈 M6× ϕ 18×1.6 | 10 |
| 8 | 1021616 | HEX BOLT M6 X 16 | 六角头螺栓 M6×16 | 12 |
| 9 | 8210207 | CABLE | 污水箱拉绳 | 1 |
| 10 | 1421612 | FLAT WASHER M6×12×1.6 | 平垫圈 M6× ϕ 12×1.6 | 5 |
| 11 | 8112005 | GASKET, VACUUM MOTOR | 吸力泵密封垫 | 1 |
| 12 | 1121605 | HEX NUT M6 | 六角螺母 M6 | 3 |
| 13 | 8210209 | STUD M6×110 | 双头螺杆 M6×110 | 3 |
| 14 | 8210210 | 3 STAGE VACUUM MOTOR 24VDC 640W | 三级吸力泵 24VDC,640W | 1 |
| 15 | 1123608 | LOCK NUT M6 | 防松螺母 M6 | 3 |
| 16 | 1914300 | TIE, NYLON, 5X300 | 尼龙扎带 5×300 | 1 |
| 17 | 8132007 | MUFFLER, VACUUM MOTOR | 消音套 | 1 |
| 18 | 8210230 | LABEL, BATTERY INSTALLATION | 电瓶连接指示贴纸 | 1 |
| 19 | 4010316 | ICE LOGO | ICE 标牌 | 1 |
| 20 | 8111008 | BRACKET | 水箱支撑限位块 | 1 |
| 21 | 1421816 | FLAT WASHER M8×16×1.6 | 平垫圈 M8× ϕ 16×1.6 | 2 |
| 22 | 8111007 | RECOVERY TANK SUPPORT | 水箱支撑架 | 1 |
| 23 | 8115404 | SLEEVE, P/M | 含油轴承 | 1 |
| 24 | 1021830 | HEX BOLT M8×30 | 六角头螺栓 M8×30 | 1 |
| 25 | 8111016 | PLATE | 小压块 | 2 |
| 26 | 1221512 | SCREW M5×12 | 十字槽盘头螺钉 M5×12 | 2 |
| 27 | 8111015 | FLOAT, SHUT-OFF | 浮球滤网 | 1 |
| 28 | 8111014 | FLOAT ADAPTER | 滤网接头 | 1 |
| 29 | 8210201 | RECOVERY TANK COVER SEAL | 污水箱盖密封条 | 1 |
| 30 | 8011005 | CAP | 封堵 | 1 |
| 31 | 8210103 | RECOVERY TANK COVER | 污水箱盖 | 1 |
| 32 | 8111022 | WARNING LABEL | 警告贴纸 | 1 |

SOLUTION TANK GROUP / 清水箱组件



PARTS LIST / 零件清单

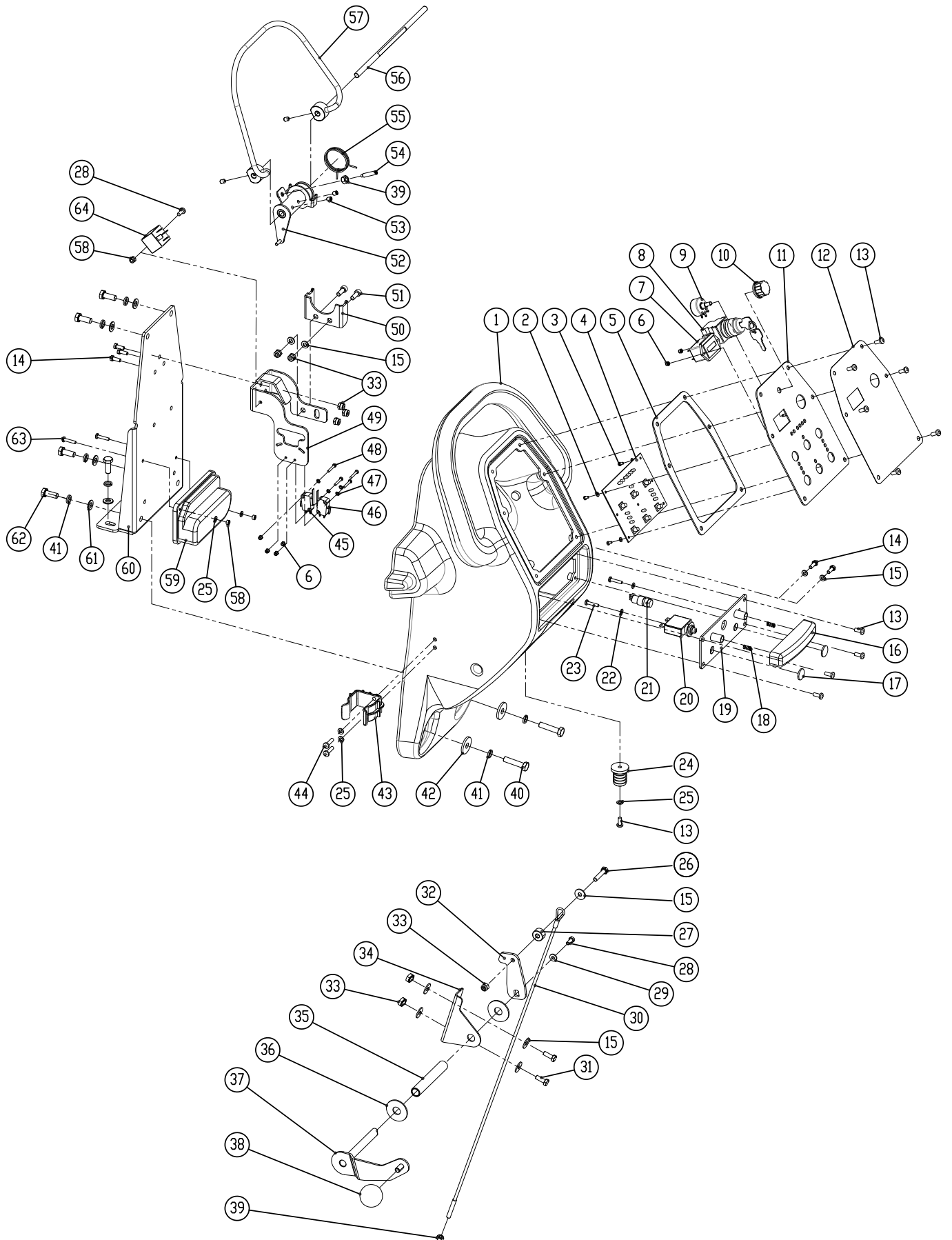
SOLUTION TANK GROUP / 清水箱组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|--|-----------------------|----------|
| 1 | 6210131 | NYLON, CLAMP | R 形线夹 | 6 |
| 2 | 1421510 | FLAT WASHER M5×10×1 | 平垫圈 M5× ϕ 10×1 | 20 |
| 3 | 1221512 | SCREW M5×12 | 十字盘头螺钉 M5×12 | 9 |
| 4 | 1123507 | LOCK NUT M5 | 防松螺母 M5 | 6 |
| 5 | 8210111 | BRACKET, ON BOARD BATTERY CHARGER MNTG | 车载充电器安装支架 | 1 |
| 6 | 8210117 | CAP, CHARGER | 充电器罩 | 1 |
| 7 | 1421612 | FLAT WASHER M6×12×1.6 | 平垫圈 M6× ϕ 12×1.6 | 12 |
| 8 | 1021616 | HEX BOLT M6 X 16 | 六角头螺栓 M6×16 | 10 |
| 9 | 1221525 | SCREW M5×25 | 十字槽盘头螺钉 M5×25 | 4 |
| 10 | 8210106 | ON BOARD BATTERY CHARGER | 车载充电器 | 1 |
| 11 | 1222641 | SCREW M6 X 40 | 十字沉头螺钉 M6×40 | 2 |
| 12 | 8210112 | HOOK, CORD | 绕线架 | 2 |
| 13 | 8210114 | COVER | 透视窗盖 | 1 |
| 14 | 1221412 | SCREW M4×12 | 十字槽盘头螺钉 M4×12 | 4 |
| 15 | 1321213 | SELF-TAPPING SCREW ST4.2X13 | 十字槽盘头自攻螺钉 ST4.2×13 | 2 |
| 16 | 8210113 | CAP, SOLUTION FILL | 注水孔堵 | 1 |
| 17 | 8210101 | SOLUTION TANK | 清水箱 | 1 |
| 18 | 4010316 | ICE Logo | ICE 标牌 | 2 |
| 19 | 8210140 | CLEAN TUBING | 清水管 | 1 |
| 20 | 1962025 | CLAMP 16-25mm | 不锈钢喉箍 16-25mm | 1 |
| 21 | 8210151 | LABEL, LEFT SIDE | 水箱左贴纸 | 1 |
| 22 | 8210141 | BATTERY CONNECT CABLE, BLACK | 黑色电瓶连接线 | 3 |
| 23 | 8113013 | SPACER, BATTERY | 泡棉 | 2 |
| 24 | 8210105 | BATTERY, 260AH @ 20Hr | 电瓶 260AH@20Hr | 4 |
| 25 | 8210107 | BATTERY TRAY | 电池盒 | 1 |
| 26 | 8114751 | JACKET, BATTERY TERMINAL, BLACK | 护套 | 8 |
| 27 | 8210104 | COVER, FRONT | 前罩 | 1 |
| 28 | 1321110 | SELF-TAPPING SCREW ST3.5 ×10 | 十字槽盘头自攻螺钉 ST3.5×10 | 3 |
| 29 | 1421409 | FLAT WASHER M4×9×0.8 | 平垫圈 M4×9×0.8 | 5 |
| 30 | 8133603 | LED LIGHT | LED 灯 | 1 |
| 31 | 8133601 | LED LIGHT MNTG BASE | LED 灯座 | 1 |
| 32 | 1221520 | SCREW M5X20 | 十字盘头螺钉 M5×20 | 3 |
| 33 | 8133602 | LED LIGHT COVER | LED 灯罩 | 1 |
| 34 | 8210531 | KNOB, M6 | 紧固螺母 M6 | 2 |
| 35 | 1535630 | SET SCREW M6 ×30 | 内六角紧定螺钉 M6 ×30 | 2 |

SOLUTION TANK GROUP / 清水箱组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|---------------------------------|------------------------|----------|
| 36 | 1421618 | PLAIN WASHER 6×18×1.6,SS | 不锈钢平垫圈 6×18×1.6 | 6 |
| 37 | 8113112 | BUSHING | 轴套 | 2 |
| 38 | 8210152 | LABEL, RIGHT SIDE | 水箱右贴纸 | 1 |
| 39 | 8113030 | SEAL | 密封条 | 1 |
| 40 | 8113002 | COVER | 注水孔盖 | 1 |
| 41 | 8113007 | STRAP | 橡胶带 | 1 |
| 42 | 8014076 | RELAY | 继电器 | 1 |
| 43 | 1422616 | LOCK WASHER, M6 | 弹簧垫圈 M6 | 6 |
| 44 | 8114705 | STAND-OFF, M6, RED | 红色接线柱 M6 | 2 |
| 45 | 8114703 | CIRCUIT BREAKER, 35A | 过载保护器 35A | 1 |
| 46 | 1222520 | SCREW M5X20 | 十字槽沉头螺钉 M5×20 | 2 |
| 47 | 8210422 | FUSE, 40A | 40A 保险 | 1 |
| 48 | 8124704 | SOLENOID SWITCH | 电磁开关 | 1 |
| 49 | 1123608 | LOCK NUT M6 | 防松螺母 M6 | 4 |
| 50 | 1123406 | LOCK NUT M4 | 防松螺母 M4 | 2 |
| 51 | 8210160 | BATTERY CONNECT CABLE, ASSEMBLY | 电瓶连接线组件 | 1 |
| 52 | 8210161 | CONNECTOR, SB175-RED | Anderson 连接器 SB175-RED | 2 |
| 53 | 1521635 | SCREW, HEX SOCKET, M6 X 35 | 内六角螺钉 M6 × 35 | 2 |
| 54 | 8210165 | BATTERY CONNECT CABLE, ASSEMBLY | 电瓶连接线组件 | 1 |
| 55 | 1021610 | HEX BOLT M6 × 10 | 六角头螺栓 M6×10 | 2 |
| 56 | 8210126 | BRACKET, SOLENOID SWITCH | 电磁开关支架 | 1 |

CONTROL CONSOLE GROUP / 控制箱组件



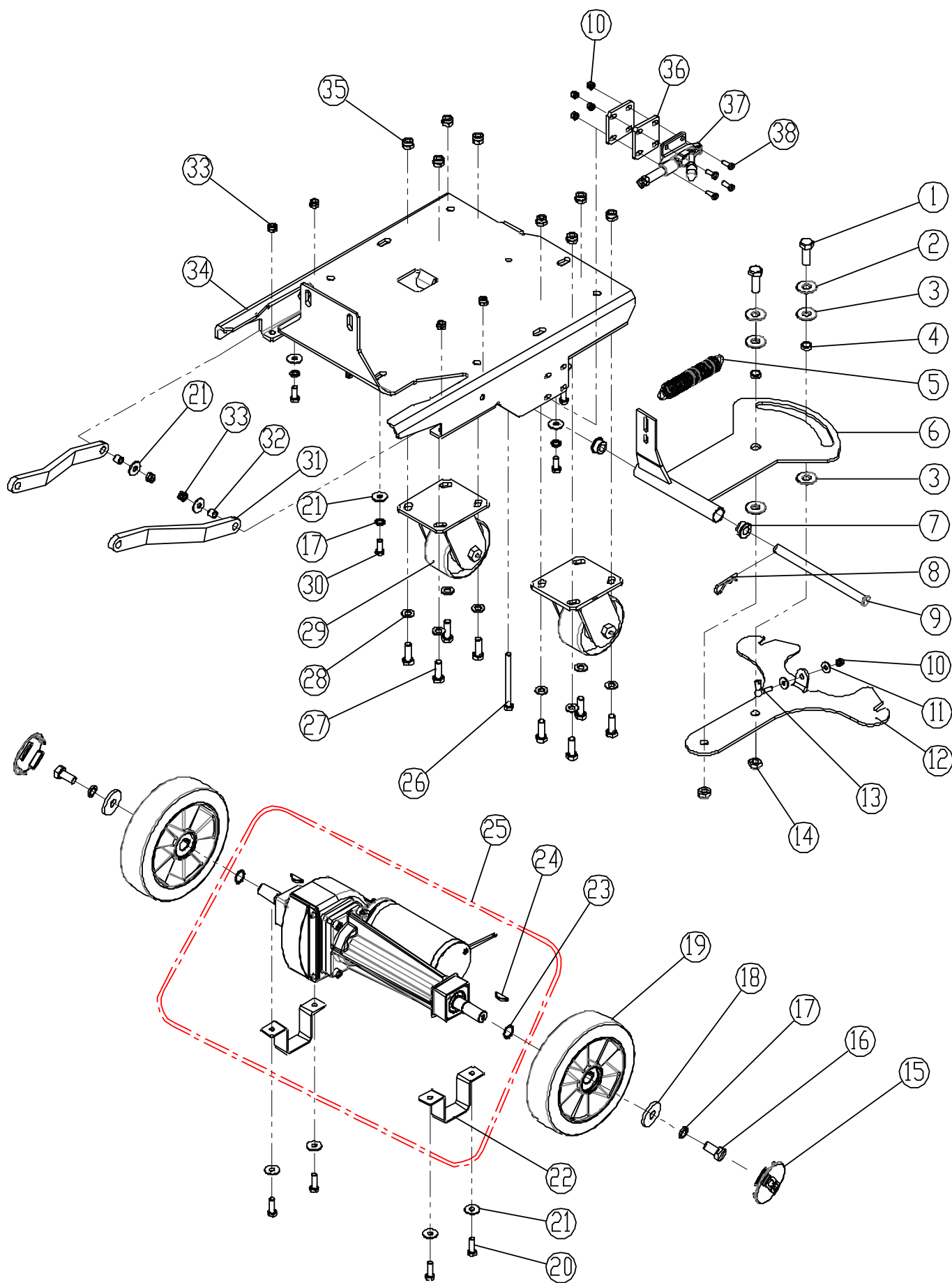
CONTROL CONSOLE GROUP / 控制箱组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|-----------------------------|-------------------------|----------|
| 1 | 8134001 | CONTROL CONSOLE HOUSING | 控制箱壳体 | 1 |
| 2 | 1421307 | FLAT WASHER M3×7×0.5 | 平垫圈 M3× ϕ 7×0.5 | 5 |
| 3 | 1221306 | SCREW M3×6 | 十字槽盘头螺钉 M3×6 | 5 |
| 4 | 8210401 | PCB ASSEMBLY | 电子板总成 | 1 |
| 5 | 8134015 | GASLET | 密封垫 | 1 |
| 6 | 1123305 | LOCK NUT M3 | 防松螺母 M3 | 6 |
| 7 | 8114710 | TIMER | 计时器 | 1 |
| 8 | 8114709 | KEY SWITCH | 钥匙开关 | 1 |
| 9 | 8124717 | POTENTIOMETER | 调速电位器 | 1 |
| 10 | 8124718 | KNOB, POTENTIOMETER | 调速电位器旋钮 | 1 |
| 11 | 8210410 | CONTROL PANEL | 控制面板 | 1 |
| 12 | 8210415 | CONTROL PANEL DECAL, I28BT | I28BT 控制面板贴纸 | 1 |
| | 8210412 | CONTROL PANEL DECAL, I32BT | I32BT 控制面板贴纸 | 1 |
| 13 | 1221512 | SCREW M5×12 | 十字槽盘头螺钉 M5×12 | 12 |
| 14 | 1021616 | HEX BOLT M6 X 16 | 六角头螺栓 M6×16 | 5 |
| 15 | 1421618 | PLAIN WASHER 6×18×1.6,SS | 不锈钢平垫圈 6×18×1.6 | 9 |
| 16 | 8124007 | BUTTON,EMERGENCY STOP | 急停开关按钮 | 1 |
| 17 | 8210414 | CAP | 封堵 | 2 |
| 18 | 8124008 | SPRING | 压缩弹簧 | 2 |
| 19 | 8144030 | BASE, CIRCUIT BREAKERS MNTG | 过载保护器安装座 | 1 |
| 20 | 8114703 | CIRCUIT BREAKER, 35A | 过载保护器 35A | 1 |
| 21 | 8124715 | EMERGENCY STOP SWITCH | 自锁按钮开关 | 1 |
| 22 | 1421409 | FLAT WASHER M4×9×0.8 | 平垫圈 M4× ϕ 9×0.8 | 4 |
| 23 | 1221421 | SCREW M4×20 | 十字槽盘头螺钉 M4×20 | 2 |
| 24 | 8114005 | CONNECTOR | 接头 | 1 |
| 25 | 1421510 | FLAT WASHER M5×10×1.0 | 普通平垫圈 M5× ϕ 10×1.0 | 5 |
| 26 | 1021630 | HEX HEAD BOLT M6×30,SS | 不锈钢六角头螺栓 M6×30 | 1 |
| 27 | 8014101 | LIFTING ROPE SPACER | 水刮拉绳套 | 1 |
| 28 | 1021512 | HEX HEAD BOLT M5×12,SS | 不锈钢六角头螺栓 M5×12 | 2 |
| 29 | 1421515 | FLAT WASHER M5×15×1.0 | 普通平垫圈 M5× ϕ 15×1.0 | 1 |
| 30 | 8210413 | CABLE, SQGE LIFT | 水刮提升钢丝绳 | 1 |
| 31 | 1021620 | HEX HEAD BOLT, M6 ×20 | 六角头螺栓 M6×20 | 2 |
| 32 | 8014012 | BAFFLE | 水刮提升挡板 | 1 |
| 33 | 1123608 | LOCK NUT M6 | 防松螺母 M6 | 8 |
| 34 | 8134501 | BRACKET | 挡板 | 1 |
| 35 | 8134508 | SLEEVE | 轴套 | 1 |

CONTROL CONSOLE GROUP / 控制箱组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|-----------------------------|------------------------------|----------|
| 36 | 1421132 | FLAT WASHER 12×32×1.5 | 平垫圈 ϕ 12× ϕ 32×1.5 | 2 |
| 37 | 8014010 | SQUEEGEE LIFTING HANDLE | 水刮提升手柄 | 1 |
| 38 | 8113104 | BALL KNOB M8 | 球形手把 M8 | 1 |
| 39 | 1121605 | HEX NUT M6 | 六角螺母 M6 | 2 |
| 40 | 1021840 | HEX BOLT M8×40 | 六角头螺栓 M8×40 | 2 |
| 41 | 1422821 | LOCK WASHER M8 | 弹簧垫圈 M8 | 8 |
| 42 | 1421828 | FLAT WASHER M8×28×3 | 加大平垫圈 M8× ϕ 28×3 | 2 |
| 43 | 6210111 | CLAMP, DRAIN HOSE | 污水管夹 | 1 |
| 44 | 1221515 | PH SCREW M5×15,SS | 不锈钢十字盘头螺钉 M5×15 | 2 |
| 45 | 8124743 | MICRO SWITCH | 微动开关 | 1 |
| 46 | 8114712 | MICRO SWITCH | 微动开关 | 1 |
| 47 | 1434300 | LOCK WASHER, TOOTH, M3 | 外齿锁紧垫圈 M3 | 4 |
| 48 | 1021320 | SCREW M3×20 | 外六角螺钉 M3×20 | 4 |
| 49 | 8134022 | BRACKET, SWITCH | 开关支架 | 1 |
| 50 | 8114402 | BRACKET, SPRING | 弹簧支架 | 1 |
| 51 | 1521616 | SCREW M6X16, HEX SCOKET | 内六角圆柱头螺钉 M6×16 | 2 |
| 52 | 8114300 | ACTUATOR | 开关拨盘组件 | 1 |
| 53 | 1534608 | SET SCREW M6 ×8 | 内六角紧定螺钉 M6 ×8 | 4 |
| 54 | 1535630 | SET SCREW M6 ×30 | 内六角紧定螺钉 M6 ×30 | 1 |
| 55 | 8114306 | SPRING | 扭转弹簧 | 1 |
| 56 | 8114101 | SHAFT | 轴 | 1 |
| 57 | 8114200 | LEVER, BAIL | 开关拉把 | 1 |
| 58 | 1123507 | LOCK NUT M5 | 防松螺母 M5 | 3 |
| 59 | 8124501 | SPEED CONTROL BOARD | 调速电子板 | 1 |
| 60 | 8134021 | REAR PLATE, CONTROL CONSOLE | 控制箱后盖板 | 1 |
| 61 | 1421824 | FLAT WASHER M8×24×2 | 平垫圈 M8× ϕ 24×2 | 6 |
| 62 | 1021820 | HEX BOLT M8×20 | 六角头螺栓 M8×20 | 6 |
| 63 | 1021535 | SCREW, M5 × 35 | 六角头螺栓 M5×35 | 2 |
| 64 | 8114707 | RELAY, 40A | 继电器 40A | 1 |

FRAME & TRANSAXLE GROUP / 底盘 & 驱动轴组件

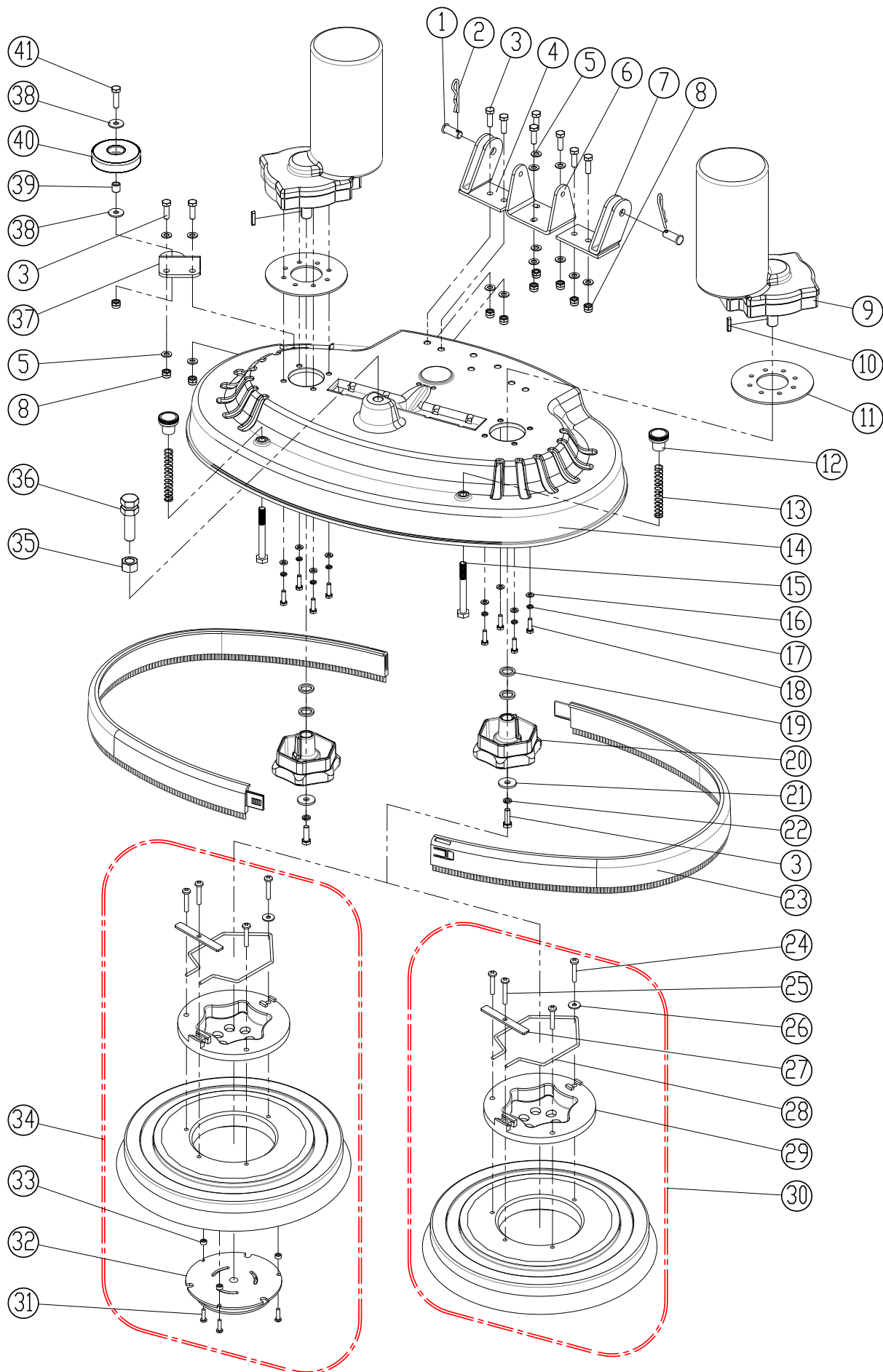


PARTS LIST / 零件清单

FRAME & TRANSAXLE GROUP / 底盘 & 驱动轴组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|--|------------------------------|----------|
| 1 | 1021230 | HEX BOLT M12 ×30 | 六角头螺栓 M12×30 | 2 |
| 2 | 1421132 | FLAT WASHER 12×32×1.5 | 平垫圈 ϕ 12× ϕ 32×1.5 | 2 |
| 3 | 8135001 | PLASTIC THRUST WASHER M12× ϕ 30×1.5 | 推力垫圈 M12× ϕ 30×1.5 | 4 |
| 4 | 8115405 | SLEEVE, P/M | 含油轴承 | 2 |
| 5 | 8210508 | SPIRNG | 拉伸弹簧 | 1 |
| 6 | 8210501 | BRACKET, SQGE LIFT | 水刮转轴 | 1 |
| 7 | 8210506 | BUSHING, P/M | 台阶套 | 2 |
| 8 | 8210309 | PIN, COTTER | 异形销 | 1 |
| 9 | 8210505 | PIN | 销轴 | 1 |
| 10 | 1123608 | LOCK NUT M6 | 防松螺母 M6 | 5 |
| 11 | 1421618 | FLAT WASHER M6×18×1.6 | 加大平垫圈 M6× ϕ 18×1.6 | 2 |
| 12 | 8210507 | BRACKET, SQGE MNTG | 水刮托架 | 1 |
| 13 | 8114511 | BALL JOINT M6 | 球头关节轴承 M6 | 1 |
| 14 | 1123115 | LOCK NUT M12 | 防松螺母 M12 | 4 |
| 15 | 8115203 | COVER, WHEEL | 轮端盖 | 2 |
| 16 | 1021816 | HEX BOLT M8 × 16 | 六角头螺栓 M8×16 | 2 |
| 17 | 1422821 | LOCK WASHER M8 | 弹簧垫圈 M8 | 7 |
| 18 | 1421828 | FLAT WASHER M8×28×2 | 加大平垫圈 M8× ϕ 28×2 | 2 |
| 19 | 8125200 | WHEEL, 8 INCH | 8" 运输轮 | 2 |
| 20 | 1021825 | HEX BOLT M8 × 25 | 六角头螺栓 M8×25 | 4 |
| 21 | 1421824 | FLAT WASHER M8×24×2 | 加大平垫圈 M8× ϕ 24×2 | 12 |
| 22 | 8210123 | BRACKET, TRANSAXLE MNTG | 驱动轴安装块 | 2 |
| 23 | 1436019 | RETAINING RING 19 | 轴用弹性挡圈 19 | 2 |
| 24 | 8125403 | WOODRUFF KEY | 半圆键 | 2 |
| 25 | 8210120 | TRANSAXLE, 24VDC | 驱动轴 24VDC | 1 |
| 26 | 1022800 | HEX BOLT M8 X 100 | 六角头螺栓 M8×100 | 1 |
| 27 | 1021030 | HEX BOLT M10 X 30 | 六角头螺栓 M10×30 | 8 |
| 28 | 1421020 | FLAT WASHER 10×20×2.0 | 平垫圈 ϕ 10× ϕ 20×2.0 | 8 |
| 29 | 8210109 | 4" CASTER | 4" 万向轮 | 2 |
| 30 | 1021820 | HEX BOLT M8×20 | 六角头螺栓 M8×20 | 5 |
| 31 | 8210115 | ARM, SCRUB HEAD LIFTING | 刷盘提升转臂 | 2 |
| 32 | 8210116 | BUSHING | 轴套 | 2 |
| 33 | 1123810 | LOCK NUT M8 | 防松螺母 M8 | 12 |
| 34 | 8210130 | FRAME | 底盘组件 | 1 |
| 35 | 1123012 | LOCK NUT M10 | 防松螺母 M10 | 8 |
| 36 | 8210138 | SPACER (OPTION) | 垫 (选配) | 2 |
| 37 | 8210137 | TOGGLE CLAMP, BRAKE (OPTION) | 手刹快速夹 (选配) | 1 |
| 38 | 1021630 | HEX BOLT M6 X 30 | 六角头螺栓 M6 × 30 | 4 |

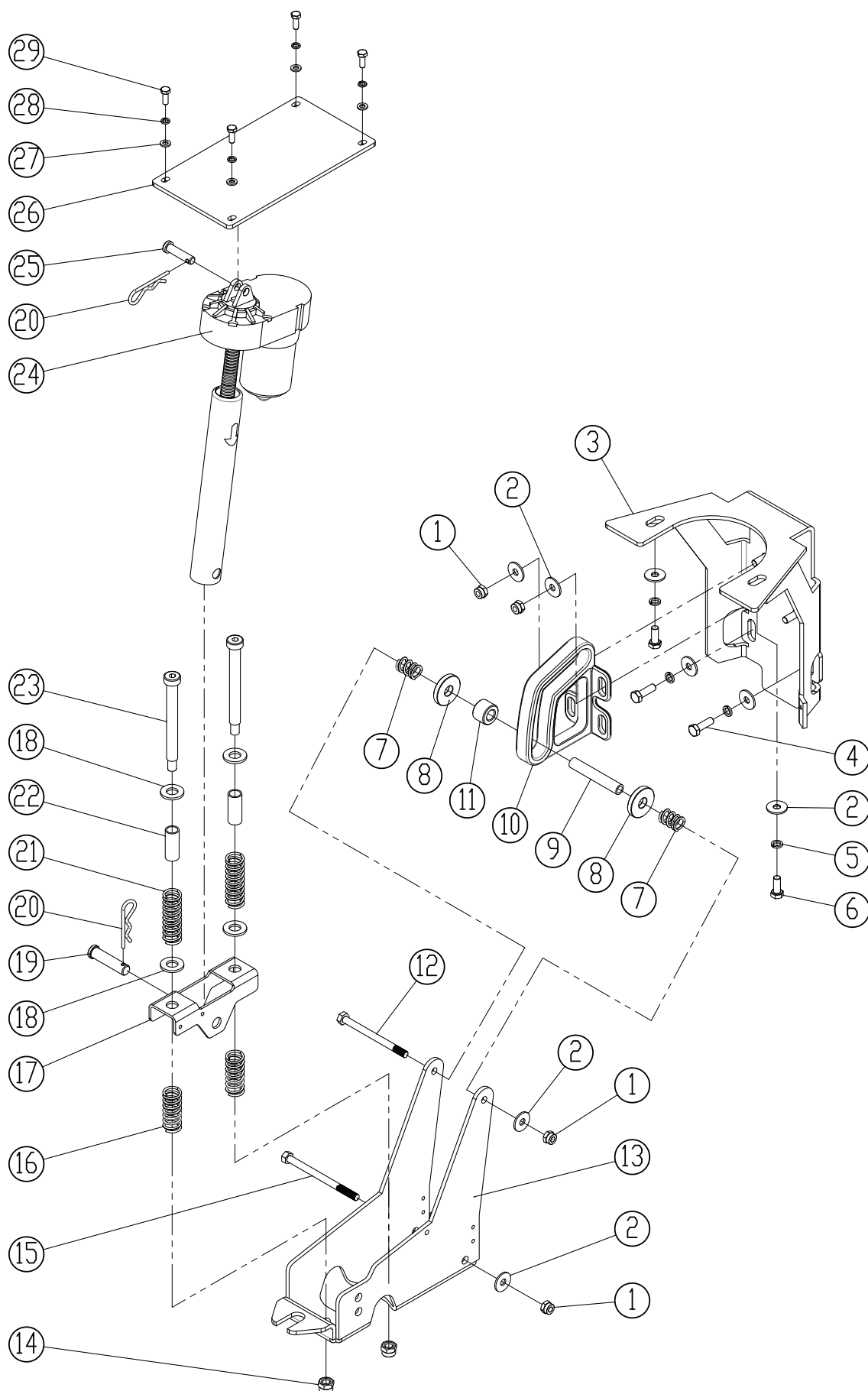
SCRUB HEAD GROUP / 刷盘组件



SCRUB HEAD GROUP / 刷盘组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|---------------------------------|---------------------------------|----------|
| 1 | 8210807 | PIN | 销轴 | 2 |
| 2 | 8210309 | PIN, COTTER | 异形销 | 2 |
| 3 | 1021825 | HEX BOLT M8 × 25 | 六角头螺栓 M8×25 | 11 |
| 4 | 8210830 | BRACKET, SCRUB HEAD LIFT, RIGHT | 右支架 | 1 |
| 5 | 1421816 | FLAT WASHER M8×16×1.6 | 平垫圈 M8× ϕ 16×1.6 | 14 |
| 6 | 8210806 | BRACKET, ACTUATOR MNTG | 刷盘提升安装支架 | 1 |
| 7 | 8210820 | BRACKET, SCRUB HEAD LIFT, LEFT | 左支架 | 1 |
| 8 | 1123810 | LOCK NUT M8 | 防松螺母 M8 | 10 |
| 9 | 8210802 | BRUSH MOTOR, 24VDC, 550W | 刷盘电机, 24VDC, 550W | 2 |
| 10 | 1655025 | KEY, 5X5X25 | 键 5×5×25 | 2 |
| 11 | 8210803 | SPACER, RUBBER | 橡胶垫 | 2 |
| 12 | 8210808 | KNOB, M10 | 按钮, M10 | 2 |
| 13 | 8210809 | SPRING | 压缩弹簧 | 2 |
| 14 | 8220801 | HOUSING, SCRUB HEAD, I28BT | I28BT 刷盘罩 | 1 |
| | 8210801 | HOUSING, SCRUB HEAD, I32BT | I32BT 刷盘罩 | 1 |
| 15 | 1022090 | HEX BOLT M10 × 90 | 六角头螺栓 M10×90 | 2 |
| 16 | 1421612 | FLAT WASHER M6×12×1.6 | 平垫圈 M6× ϕ 12×1.6 | 8 |
| 17 | 1422616 | LOCK WASHER, M6 | 弹簧垫圈 M6 | 8 |
| 18 | 1021620 | HEX BOLT M6 × 20 | 六角头螺栓 M6×20 | 8 |
| 19 | 8210804 | SPACER | 垫 | 4 |
| 20 | 8210805 | HUB, BRUSH DRIVE | 刷盘座 | 2 |
| 21 | 1421828 | FLAT WASHER M8×28×3.0 | 平垫圈 M8× ϕ 28×3.0 | 2 |
| 22 | 1422821 | LOCK WASHER M8 | 弹簧垫圈 M8 | 2 |
| 23 | 8220810 | BUMPER, SCRUB HEAD, I28BT | I28BT 裙边 | 2 |
| | 8218050 | BUMPER, SCRUB HEAD, I32BT | I32BT 裙边 | 2 |
| 24 | 1221635 | SCREW, M6 × 35 | 十字盘头螺钉 M6×35 | 12 |
| 25 | 1221640 | SCREW, M6 × 40 | 十字盘头螺钉 M6×40 | 4 |
| 26 | 1421618 | FLAT WASHER M6×18×1.6 | 平垫圈 M6× ϕ 18×1.6 | 4 |
| 27 | 8210861 | RETAINER BAR | 压板 | 4 |
| 28 | 8210862 | SPRING, G-400S | 卡扣弹簧, G-400S | 4 |
| 29 | 9000004 | CLUTCH, G-400S | G-400S 卡扣 | 4 |
| 30 | 9050014 | BRUSH ASSEMBLY, 14 INCH, I28BT | 14 寸洗地刷, I28BT | 2 |
| | 9050016 | BRUSH ASSEMBLY, 16 INCH, I32BT | 16 寸洗地刷, I32BT | 2 |
| 31 | 1321325 | SELF-TAPPING SCREW, ST5 X 25 | 十字盘头尖尾自攻螺钉 ST 5×25 | 6 |
| 32 | 9000003 | CENTER LOCK, #3 | #3 中心定位器 | 2 |
| 33 | 8116040 | SPACER, 6.5×14.5×7.0 | 增高垫 ϕ 6.5× ϕ 14.5×7.0 | 6 |
| 34 | 9040014 | PAD DRIVER, 14INCH, I28BT | 14 寸针座, I28BT | 2 |
| | 9040016 | PAD DRIVER, 14INCH, I32BT | 16 寸针座, I32BT | 2 |
| 35 | 1111215 | HEX NUT, M16 | 六角螺母 M16 | 1 |
| 36 | 8210811 | AJUSTMENT STUD, M16 | 调节螺栓 M16 | 1 |
| 37 | 8210810 | BRACKET, ROLLER MNTG | 防撞轮安装支架 | 1 |
| 38 | 1421824 | FLAT WASHER M8×24×2 | 加大平垫圈 M8× ϕ 24×2 | 2 |
| 39 | 8115404 | SLEEVE, P/M | 含油轴承 | 1 |
| 40 | 8116009 | PROTECTIVE WHEEL | 防撞轮 | 1 |
| 41 | 1021830 | HEX BOLT M8 × 30 | 六角头螺栓 M8×30 | 1 |

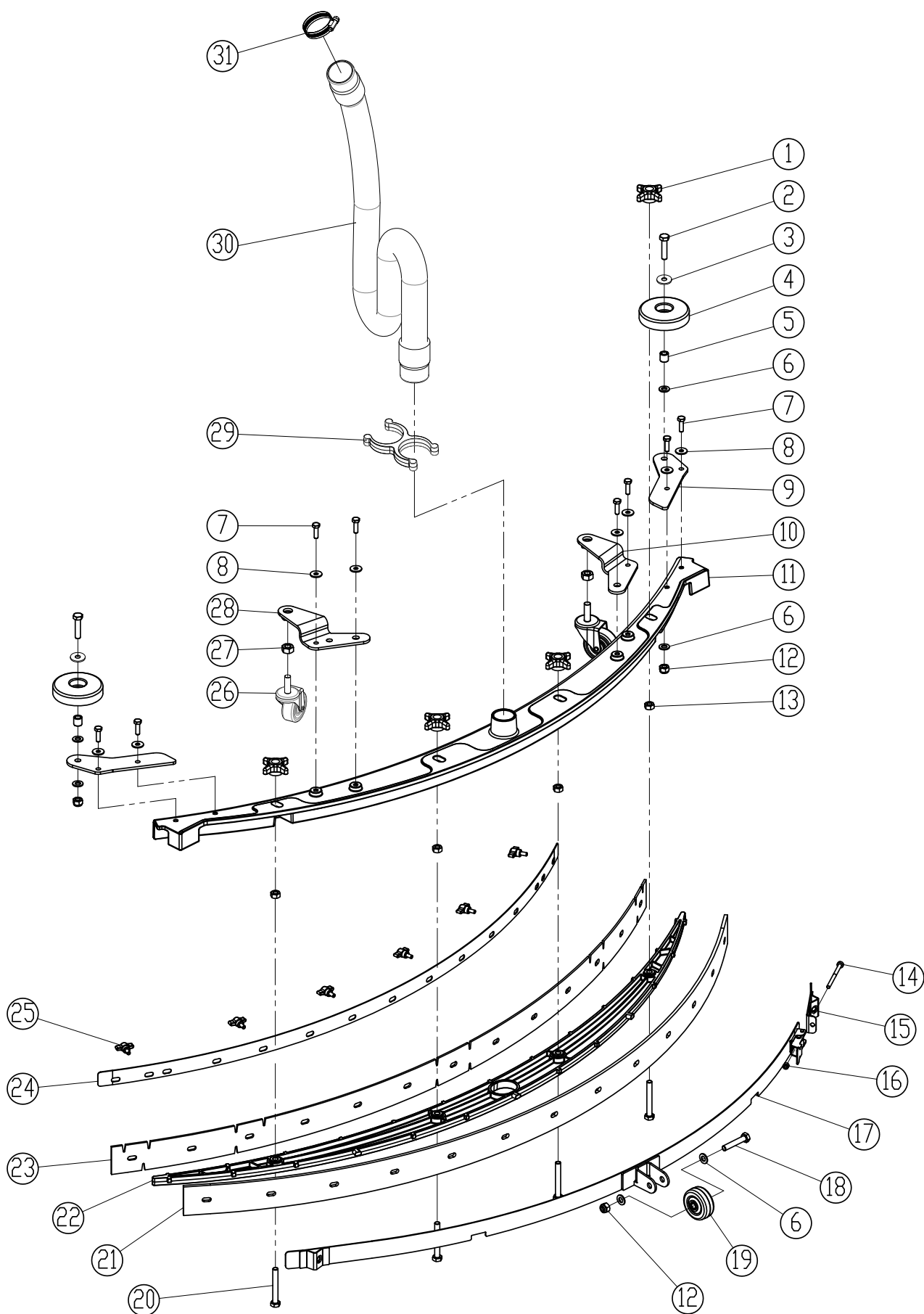
SCRUB HEAD LIFT GROUP / 刷盘提升组件



SCRUB HEAD LIFT GROUP / 刷盘提升组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|------------------------|------------------------------|----------|
| 1 | 1123810 | LOCK NUT M8 | 防松螺母 M8 | 6 |
| 2 | 1421824 | FLAT WASHER M8×24×2 | 平垫圈 M8× ϕ 24×2 | 10 |
| 3 | 8210306 | BRACKET, GUIDE MNTG | 导向架安装支架 | 1 |
| 4 | 1021825 | HEX BOLT M8×25 | 六角头螺栓 M8×25 | 2 |
| 5 | 1422821 | LOCK WASHER M8 | 弹簧垫圈 M8 | 4 |
| 6 | 1021820 | HEX BOLT M8×20 | 六角头螺栓 M8×20 | 2 |
| 7 | 8210311 | SPRING | 压缩弹簧 | 2 |
| 8 | 8210312 | WASHER, PM | 含油轴承 | 2 |
| 9 | 8210314 | shaft | 轴套 | 1 |
| 10 | 8210310 | GUIDE, ROLLER | 导向架 | 1 |
| 11 | 8210313 | ROLLER | 滚轮 | 1 |
| 12 | 1022800 | HEX BOLT M8 X 100 | 六角头螺栓 M8×100 | 1 |
| 13 | 8210316 | BRACKET, SCRUB LIFT | 刷盘提升支架 | 1 |
| 14 | 1123008 | LOCK NUT 3/8 | 防松螺母 3/8 | 2 |
| 15 | 1022811 | HEX BOLT M8 X 110 | 六角头螺栓 M8×110 | 1 |
| 16 | 8210319 | SPRING | 压缩弹簧 | 2 |
| 17 | 8210317 | BRACKET, SPRING | 弹簧座 | 1 |
| 18 | 1421132 | FLAT WASHER 12×32×1.5 | 平垫圈 ϕ 12× ϕ 32×1.5 | 4 |
| 19 | 8210322 | PIN | 销轴 | 1 |
| 20 | 8210309 | PIN, COTTER | 异形销 | 2 |
| 21 | 8210318 | SPRING | 压缩弹簧 | 2 |
| 22 | 8210320 | SLEEVE | 导套 | 2 |
| 23 | 8210321 | BOLT, SHOULDER, 3/8 | 轴肩螺栓, 3/8 | 2 |
| 24 | 8210302 | ACTUATOR, 24VDC | 线推器, 24VDC | 1 |
| 25 | 8210301 | PIN | 销轴 | 1 |
| 26 | 8210303 | BRACKET, ACTUATOR MNTG | 线推器安装支架 | 1 |
| 27 | 1421612 | FLAT WASHER M6×12×1.6 | 普通平垫圈 M6× ϕ 12×1.6 | 4 |
| 28 | 1422616 | LOCK WASHER M6 | 弹簧垫圈 M6 | 4 |
| 29 | 1021616 | HEX BOLT M6 X 16 | 六角头螺栓 M6×16 | 4 |

SQUEEGEE GROUP / 水刮组件

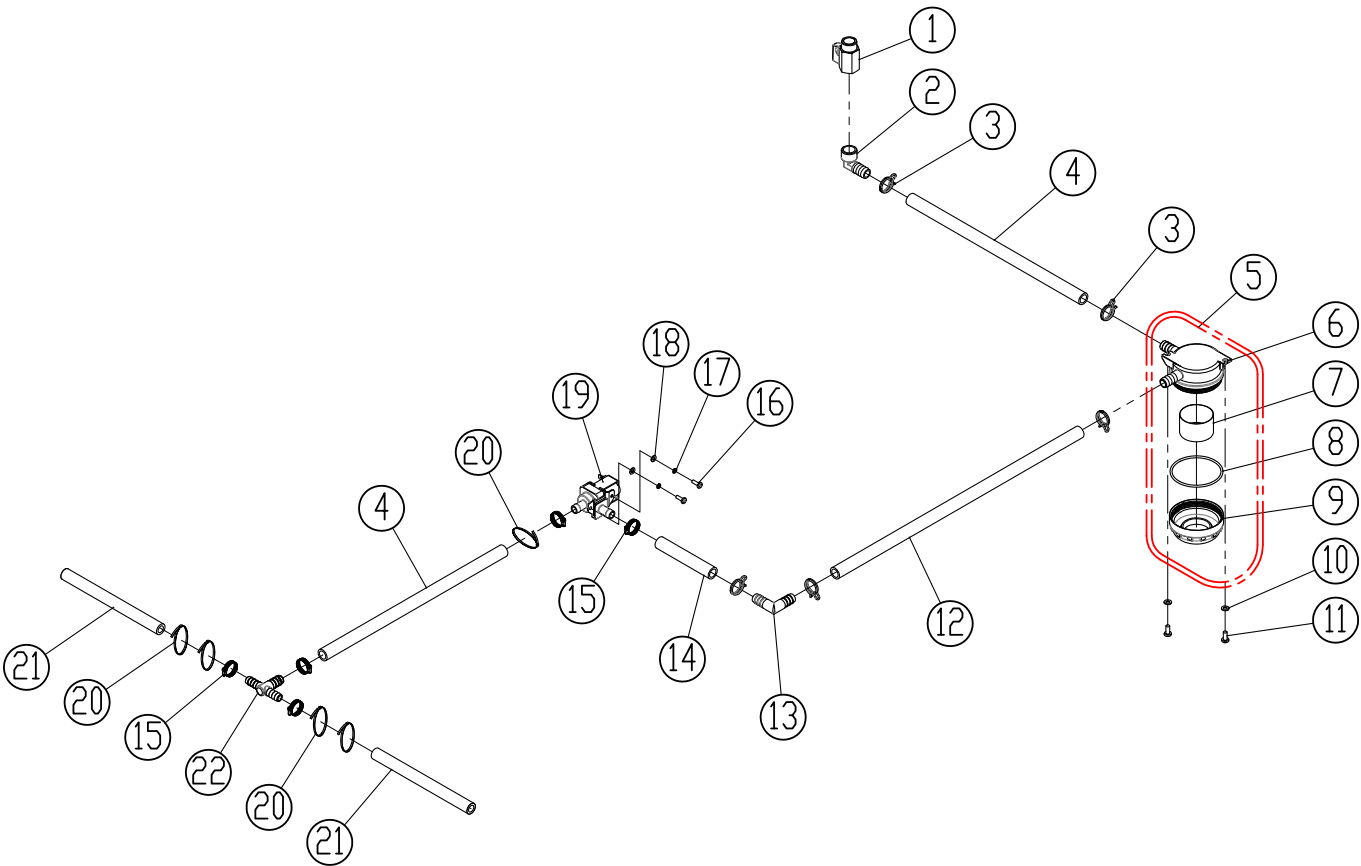


PARTS LIST / 零件清单

SQUEEGEE GROUP / 水刮组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|--------------------------------------|-----------------------|----------|
| 1 | 8118003 | STAR KNOB M8 | 星形把手 M8 | 4 |
| 2 | 1021835 | HEX BOLT M8×35 | 六角头螺栓 M8×35 | 2 |
| 3 | 1421824 | FLAT WASHER M8×24×2.0 | 平垫圈 M8× ϕ 24×2.0 | 2 |
| 4 | 8116009 | PROTECTIVE WHEEL | 防撞轮 | 2 |
| 5 | 8115404 | BEARING, JOURNAL | 含油轴承 | 2 |
| 6 | 1421816 | FLAT WASHER M8×16×1.6 | 平垫圈 M8× ϕ 16×1.6 | 6 |
| 7 | 1021616 | HEX BOLT M6×16 | 六角头螺栓 M6×16 | 8 |
| 8 | 1421618 | FLAT WASHER M6×18×1.6 | 平垫圈 M6× ϕ 18×1.6 | 8 |
| 9 | 8210515 | BRACKET, ROLLER MNTG | 防撞轮安装支架 | 2 |
| 10 | 8118300 | RIGHT BRACKET | 右支架 | 1 |
| 11 | 8210511 | SQUEEGEE HOUSING | 水刮架 | 1 |
| 12 | 1123810 | LOCK NUT M8 | 防松螺母 M8 | 2 |
| 13 | 1121807 | HEX NUT M8 | 六角螺母 M8 | 4 |
| 14 | 1221575 | SCREW M5×75 | 十字槽盘头螺钉 M5×75 | 1 |
| 15 | 8210525 | SHORT CLAMP ASSEMBLY | 短夹条 | 1 |
| 16 | 1123507 | LOCK NUT M5 | 防松螺母 M5 | 1 |
| 17 | 8210520 | CLAMP ASSEMBLY, SQUEEGEE | 夹条组件 | 1 |
| | 8211520 | CLAMP ASSEMBLY, SQUEEGEE(OPTIOANL) | 夹条组件 (选配) | 1 |
| 18 | 1022845 | HEX BOLT M8×45 | 六角头螺栓 M8×45 | 1 |
| 19 | 8210527 | WHEEL, 2 INCH | 2 寸轮 | 1 |
| 20 | 1021860 | HEX BOLT M8×60 | 六角头螺栓 M8×60 | 4 |
| 21 | 8210514 | SQUEEGEE BLADE, REAR, LINATEX | 后刮条, LINATEX | 1 |
| | 8210517 | SQUEEGEE BLADE, REAR, PU (OPTIONAL) | 后刮条, PU(选配) | 1 |
| 22 | 8210512 | RETAINER,SQUEEGEE | 水刮保持架 | 1 |
| 23 | 8210513 | SQUEEGEE BLADE, FRONT, LINATEX | 前刮条, LINATEX | 1 |
| | 8210516 | SQUEEGEE BLADE, FRONT, PU (OPTIONAL) | 前刮条, PU(选配) | 1 |
| 24 | 8210519 | CLAMP, FRONT BLADE | 前刮条夹条 | 1 |
| 25 | 8210530 | KNOB, M6 | M6 旋钮 | 6 |
| 26 | 8118400 | CASTER, 2 INCH | 2" 万向轮 | 2 |
| 27 | 1121008 | HEX NUT M10 | 六角螺母 M10 | 2 |
| 28 | 8118200 | LEFT BRACKET | 左支架 | 1 |
| 29 | 8118109 | HOLDER VACUUM HOSE | 吸水管夹 | 1 |
| 30 | 8118006 | VACUUM HOSE | 吸水管组件 | 1 |
| 31 | 1962050 | CLAMP | 喉箍 27-51mm | 1 |

SOLUTION GROUP / 溶液系统组件



SOLUTION GROUP / 溶液系统组件

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|---------|-------------|------------------------------------|------------------------|----------|
| 1 | 8119005 | BALL VALVE, G1/2 | 球阀 G1/2 | 1 |
| 2 | 8119007 | ELBOW G1/2 | 直角接头 G1/2 | 1 |
| 3 | 8119006 | CLAMP | 水管夹 (小) | 5 |
| 4 | 8210901 | TUBING ID=12MM L=330MM | 防冻溶液管 ID=12mm, L=330mm | 2 |
| 5 | 8119100 | FILTER ASSEMBLY | 过滤器组件 | 1 |
| 6 | 8119101 | BASE, FILTER ASSEMBLY | 过滤器体 | 1 |
| 7 | 8119103 | SCREEN, FILTER, 70 MESH | 滤网, 70 目 | 1 |
| | 8119105 | SCREEN, FILTER, 40 MESH (OPTIONAL) | 滤网, 40 目 (选配) | 1 |
| 8 | 1622063 | O RING | O 形密封圈 | 1 |
| 9 | 8119102 | CAP, FILTER ASSEMBLY | 过滤器盖 | 1 |
| 10 | 1421510 | FLAT WASHER M5×10×1 | 平垫圈 M5× ϕ 10×1 | 2 |
| 11 | 1221512 | SCREW M5×12 | 十字槽盘头螺钉 M5×12 | 2 |
| 12 | 8210902 | TUBING ID=12MM L=480MM | 防冻溶液管 ID=12mm, L=480mm | 1 |
| 13 | 8119002 | ELBOW, TUBING BARB | 90 度接头 | 1 |
| 14 | 8210903 | TUBING ID=12MM L=120MM | 防冻溶液管 ID=12mm, L=120mm | 1 |
| 15 | 1962016 | CLAMP, 10-16mm | 不锈钢喉箍 10-16mm | 5 |
| 16 | 1221412 | SCREW M4×12 | 十字槽盘头螺钉 M4×12 | 2 |
| 17 | 1422411 | LOCK WASHER M4 | 弹簧垫圈 M4 | 2 |
| 18 | 1421409 | FLAT WASHER M4×9×0.8 | 普通平垫圈 | 2 |
| 19 | 8119003 | SOLENOID VALVE, 24VDC | 放水电磁阀, 24VDC | 1 |
| 20 | 1914300 | TIE, NYLON, 5X300 | 尼龙扎带 5×300 | 5 |
| 21 | 8210904 | TUBING ID=10MM L=180MM | 防冻溶液管 ID=10mm, L=180mm | 2 |
| 22 | 8119008 | FITTING, PLASTIC, TEE | 三通接头 | 1 |

WEAR AND TEAR PARTS / 易损件清单

| DIA NO. | PART NUMBER | DESCRIPTION | 零件名称 | NO REQ'D |
|----------------|--------------------|--------------------------------|---------------|-----------------|
| 1 | 8125200 | WHEEL, 8 INCH | 8" 运输轮 | 2 |
| 2 | 8116009 | PROTECTIVE WHEEL | 防撞轮 | 3 |
| 3 | 8210513 | SQUEEGEE BLADE, FRONT, LINATEX | 前刮条, LINATEX | 1 |
| 4 | 8210514 | SQUEEGEE BLADE, REAR, LINATEX | 后刮条, LINATEX | 1 |
| 5 | 9050014 | 14" BRUSH , I28BT | 14 "刷盘, I28BT | 2 |
| | 9050016 | 16" BRUSH , I32BT | 16 "刷盘, I32BT | 2 |
| 6 | 9040014 | 14" PAD HOLDER, I28BT | 14" 针座, I28BT | 2 |
| | 9040016 | 16" PAD HOLDER, I32BT | 16" 针座, I32BT | 2 |

安全预防

 **警告：在操作或使用本机器前，请仔细阅读并理解本操作手册。**

本机器仅作商业用途，并限于户内使用，敬请使用推荐的附件。

所有操作人员必须阅读、理解并掌握以下安全预防措施。

1. 请勿操作机器：

- 未经培训或取得相应的资格。
- 未认真阅读并理解本操作手册。
- 在易燃易爆的场所。
- 机器存在故障隐患而不适宜操作。
- 户外作业。

2. 操作本机前：

- 确保所有安全装置工作正常。

3. 使用机器时：


- 在斜坡和打滑的地面时请使用低速操作。
- 请遵照安全指引作业。
- 当机器后退时请特别小心。
- 转向时请放慢速度。
- 机器损坏或操作失灵时，请立即报告。
- 切勿让孩童在机器上或附近玩耍。
- 不要在超过 3 度的斜坡上作业。

4. 离开或维修机器之前：

- 将机器停放在平稳的地面上。
- 关闭机器电源并拔出钥匙开关钥匙。

5. 维修机器时：

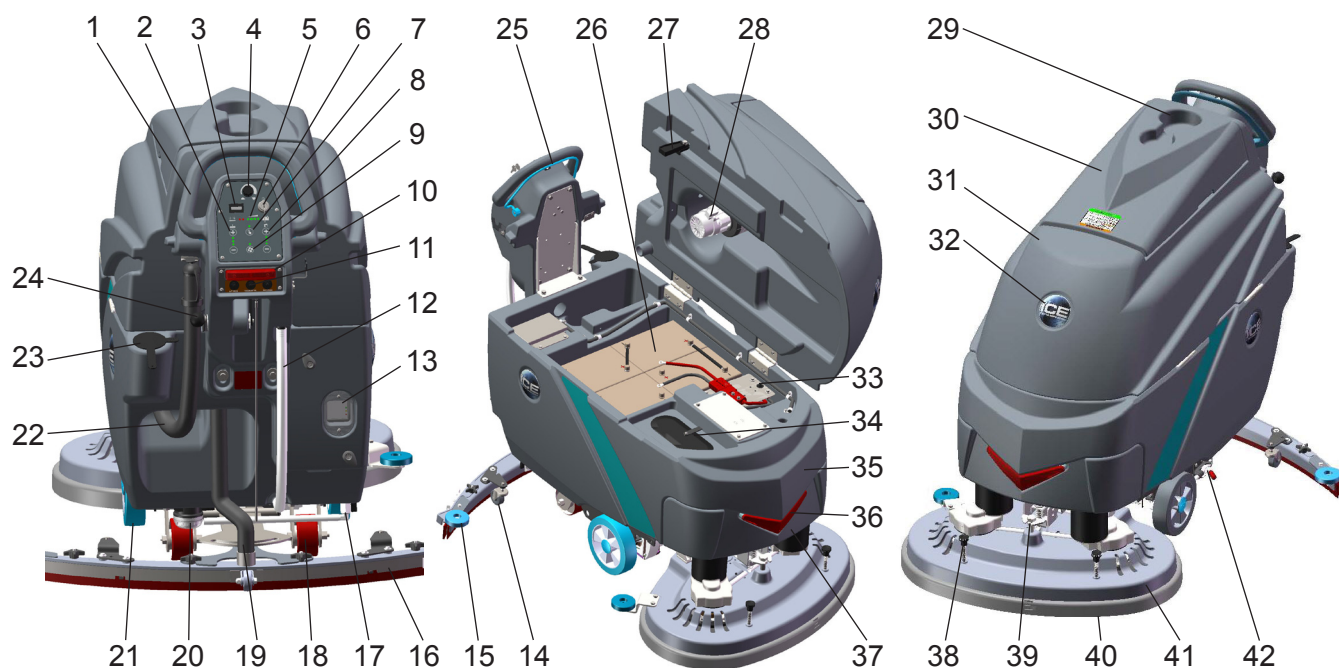
- 请仔细阅读本操作手册。
- 请使用原厂配件。
- 在轮子前放置挡块。
- 维修机器前，请先断开电池联接。
- 处理电池或电池接线时，请穿戴防护手套。
- 避免接触电池酸性物质。
- 避免移动零件。请勿穿着宽松的上衣、衬衫或手套。

 **警告：电池释放出氢气，并会导致燃烧和爆炸。请远离火花或开放式火源。充电时须保持电池舱开启。**

 **警告：易燃物质会导致燃烧和爆炸，请勿使用易燃性物体。**

 **警告：请勿拾取易燃性物质或活性金属！**

机器组件



- | | |
|---|--|
| <p>1. 控制箱手把</p> <p>2. 刷盘压力调节按键 & 指示灯 <input type="checkbox"/> 增加刷盘压力按键 <input type="checkbox"/> 减少刷盘压力按键</p> <p>3. 计时表</p> <p>4. 速度调节旋钮  慢速  快速</p> <p>5. 电量显示表</p> <p>6. 主电源钥匙开关</p> <p>7. 刷盘升 / 降一键开关 & 指示灯</p> <p>8. 溶液流量调节按钮 & 指示灯 <input type="checkbox"/> 增加流量按钮 <input type="checkbox"/> 减少流量按钮</p> <p>9. 吸水马达开关 & 指示灯</p> <p>10. 急停开关按钮</p> <p>11. 驱动马达过载保护器</p> <p>12. 水位 / 清水管</p> <p>13. 车载式充电器</p> <p>14. 2 寸万向轮</p> <p>15. 防撞轮</p> <p>16. 水刮组件</p> <p>17. 球阀</p> <p>18. 4 寸万向轮</p> | <p>19. 吸水管</p> <p>20. 过滤器组件</p> <p>21. 8 寸运输轮</p> <p>22. 放污管</p> <p>23. 水管注水口</p> <p>24. 水刮提升拉把</p> <p>25. 开关拉把  前进 / 后退指示贴纸</p> <p>26. 电瓶组件</p> <p>27. 污水箱支撑</p> <p>28. 吸水马达, 24VDC</p> <p>29. 储物盒</p> <p>30. 污水箱盖</p> <p>31. 污水箱</p> <p>32. ICE 标牌</p> <p>33. 吸水马达过载保护器</p> <p>34. 桶注水孔 / 清洁口</p> <p>35. 清水箱</p> <p>36. LED 灯</p> <p>37. 前罩</p> <p>38. 卸刷推销</p> <p>39. 刷盘头调节螺栓</p> <p>40. 裙边</p> <p>41. 刷盘头组件</p> <p>42. 泊车手刹 (选配)</p> |
|---|--|

机器调试与安装

拆开机器包装

请仔细检查机器包装上是否有破损的情形，如有破损应立即向运送货物的相关人员反映。
检查装箱清单，如有遗漏项目，请联络经销商。

- 机器
- 4 个 6V 电瓶
- 水刮组件
- 2 个针座
- 2 个洗地刷

安装电瓶



警告：电池释放出氢气，并会导致燃烧和爆炸。请远离火花或开放式火源。充电时须保持电池舱开启。

推荐的电瓶规格：

4 个 6V，260AH@20HR 深循环免维护电瓶

最大电瓶尺寸：

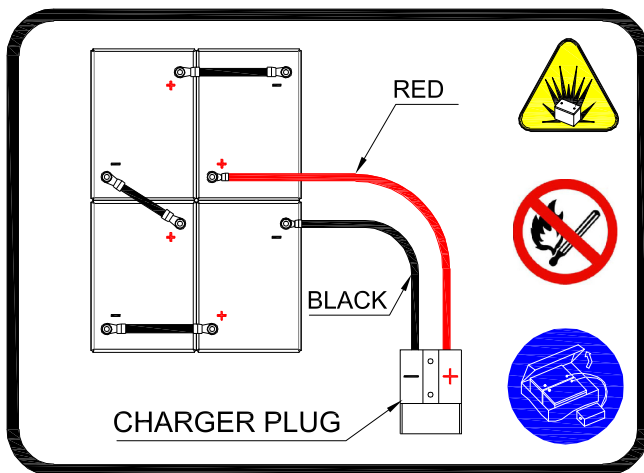
265mm(长) × 190mm(宽) × 280mm(高)

1. 关闭机器。
2. 打开污水箱至足够装入电瓶的空间。
3. 小心地将电瓶安装在电池盒内，将泡棉隔垫放入电瓶后部。

请勿将电瓶摔落到电瓶盒内，以免造成电瓶与机器的损坏！

4. 将电瓶连接线连接到电瓶的正负极，如下图所示。

红色接正极 (+)，黑色接负极 (-)。



机器调试

操作前检查

1. 检查外观是否清洁。
2. 检查电量显示表，确保电瓶已充满电。（参见电瓶充电章节）
3. 检查水刮是否正确安装。
4. 检查刷盘 / 针座是否正确安装。

刷盘或针座安装

1. 关闭刷盘升 / 降一键开关（见机器组件 #7），提升刷盘组件离开地面，将机器停在水平的地面上，拔除主电源开关钥匙，确保机器已关闭。
2. 如果使用针座，请首先应将纤维垫放在针座上。
3. 将刷盘或针座的卡扣对准电机轴上的刷盘座，咬合后用方向上一推即可，如下图所示。



4. 向下推动卸刷推销（见机器组件 #38），即可将刷盘或针座卸下。

安装水刮组件

1. 提起水刮提升拉把（参见机器组件 #24）。
2. 拧开水刮组件上中间的两个手把，置水刮组件于水刮托架槽内。
3. 连接吸水管到水刮组件上，并用吸水管夹将吸水管弯曲形成一个回水弯。
4. 检查刮条并做适当的调整。

清水箱注水

本机器有两个注水口：

后方设有软管注水孔（参见机器组 #23）。

打开污水箱可以看到清水箱上设有水桶注水孔（参见机器组件 #34）。**打开污水箱前请确保污水箱内污水已排空。**

用软管向清水箱内注水时，注意观察清水管，当水位到达“100L”位置时停止加水。如果是使用水桶注水，当水位到注水口下边缘时停止注水。

注意：当使用水桶注水时，确保水桶是干净的。加水和排水时不要使用相同的水桶。



警告：勿倒易燃物到清水箱内，否则，会导致燃烧或爆炸。联系当地代理商，使用本机所推荐的清洁剂。

机器操作

⚠ 未认真阅读和理解本操作手册，请勿操作本机。

1. 打开主电源钥匙开关（参见机器组件 #6）。
2. 检查电量显示表（参见机器组件 #5），如果电量显示表红色指示灯亮了，请不要继续使用，应立即对电瓶充电。
3. 打开刷盘升 / 降一键开关（参见机器组件 #7），将刷盘组件放到地面，一键开关指示灯是常亮的。
4. 放下水刮提升把手（参见机器组件 #24），放下水刮组件至地面。
5. 检查水量指示灯（参见机器组件 #8），按增加或减少水量按键，调节水量到合适的流量。

注意：只有拉动开关拉把后，清水才会流动。

6. 打开吸力泵开关（参见机器组件 #9）。
7. 将开关拉把（参见机器组件 #25）向后拉，机器会自动向前推进开始工作。如果要后退，只需将开关拉把简单地向前推，机器后退时请将水刮组件提起。
8. 机器行走的速度可以调节，转动调速器旋钮（参见机器组件 #4），将机器调整到所需的清洗速度。
注意：建议使用每分钟 45-60 米的清洗速度。
9. 如要调整机器刷地的压力，按刷盘压力增加 / 减少按键（参见机器组件 #2），可将刷地压力调整至合适值。
10. 要停止清洁工作，请将开关拉把放开，关闭刷盘升 / 降一键开关，提起水刮组件。

机器操作过程中

⚠ 警告：火灾或爆炸危险。请勿拾取易燃性材料或活性金属。

1. 在斜坡或打滑的地面作业时请低速操作。不要在超过 3 度的斜坡上作业。
2. 使机器持续行进以免损伤地面。
3. 若水刮组件吸水后在地面上留下拖痕，请用抹布擦试刮条以去除垃圾。事先清扫清洗区域以避免产生拖痕。
4. 如果污水箱内泡沫过多，请将建议使用的消泡液倒入污水箱消泡。

⚠ 警告：泡沫不能使浮球滤网内的浮球工作，请勿使泡沫进入污水箱中滤网浮球，以免损坏吸力马达。

5. 注意观察电量显示表（参见机器组件 #5），当红色指示灯闪亮时，刷盘会停止运转，请停止清洁工作，对电瓶充电。

⚠ 警告：电量显示表上红色指示灯亮时，请不要继续使用机器，否则会导致电瓶损坏。

6. 当清水箱内的清水用完之后，关闭升 / 降一键开关，将刷盘组件提升离开地面，保持水刮继续工作，直到污水全部吸取后，将污水箱内的污水排干（参见排水章节）。

注意：关闭一键开关后刷盘电机将不会运转。

过载保护器 / 保险

本机器配有两个可复位的过载保护器（参见机器组件 #11, #33），以避免驱动电机和吸力泵损坏。如果过载保护器动作，请先判断原因并让马达冷却，然后再以手动方式重新复位脱扣的过载保护器。

本机器还配有一个 60A 的保险片，用于保护刷盘电机。更换保险片时，切勿使用高于指定的额定安培值的替代品。

计时器

计时器（参见机器组件 #3）会记录刷子马达开机工作的总时数。请使用计时器来判定何时应执行建议的维护程序并记录维修历史。

急停开关按钮 / 刹车

本机器的驱动桥配有电磁刹车机构。当遇到紧急情况时，放开开关拉把（参见机器组件 #25），或按下急停开关按钮（参见机器组件 #10），机器将刹车并停止行进。将急停开关按钮复位后，打开主电源钥匙开关，拉住开关拉把，机器将可以重新启动。

注意：只有打开主电源钥匙开关（参见机器组件 #6），并且拉住开关拉把（参见机器组件 #25）时，机器才能行进（推动）。

⚠ 警告：除非得到授权，请勿改变电磁刹车机构的出厂设置，否则可能会导致机器损坏或人身伤害。机器如需维修，请与授权的服务中心联系。

水箱排水

1. 关闭机器电源。
2. 提升水刮组件和刷盘组件，推动机器至特定排水区排水。

污水箱排水

每次清洁工作完成后，或重新向清水箱加水前，污水箱内的污水应排干并清洗污水箱。

警告：当清水箱再次加满水时，如果污水箱未排水，泡沫或水可能会进入浮球装置里面损坏吸力泵。

1. 拿下放污管（参见机器组件 #22），拧下放污管堵头，放到排水桶或排水区地面开始排水。
2. 打开污水箱盖并用清水冲洗污水箱内部。
3. 清洗位于污水箱内的浮球滤网。

清水箱排水

每次清洁工作完成之后，清水箱应排水并清洁。

1. 拔下清水管（参见机器组件 #12），让清水箱内清水排出。
2. 拧开过滤器组件（参见机器组件 #20）的盖子，也可以排出清水箱内的清水。请检查过滤网是否干净，如果必要的话冲洗滤网。
3. 每次使用之后请用清水冲洗清水箱，以免溶液系统堵塞。清水箱排干后，重新插好清水管，确保过滤器滤网和 O 形密封圈正确安装后，拧紧过滤器盖。

电瓶充电

警告：火灾或爆炸危险。电瓶释放出氢气。请远离火花或开放式火源。充电时请保持电瓶仓开启。

警告：仅能使用以下特定规格的充电器：

- 自动断路
- 深循环充电
- 输出电流 20-30 安培
- 输出电压 24 伏

车载式充电器

车载式充电器（参见机器组件 #13），是本机器的标准配置，出厂前，充电器已按推荐的电瓶型号作了特定的设置。

警告：更改车载式充电器的设置，必须由授权的服务中心实行。不正确的设置，将会导致电瓶或充电器的损坏。

1. 将充电器和机器置于良好通风处。
2. 关闭机器电源。
3. 如果是对湿电瓶充电，充电前请检查电池液面高度。
4. 请将污水箱支撑（参见机器组件 #27）竖起，支撑住污水箱以利通风。
5. 将车载式充电器的电源插头插入接地良好的电源插座上。
6. 车载式充电器将自动开始充电。充电过程中，可以从透视窗观察充电器的充电状态。充电器上有红黄绿三盏指示灯，红色指示亮，表明充电进入第 1 阶段，黄色指示灯亮表明充电进入第 2 阶段（50%），若绿色指示灯亮了，则表明电瓶已充满，拔下充电器插头，充电完成。

注意：充电过程中，机器不能工作。

外置式充电器（选配）

1. 将充电器和机器置于良好通风处。
2. 关闭机器电源。
3. 如果是对湿电瓶充电，充电前请检查电池液面高度。
4. 将充电器的交流电源线插入接地良好的电源插座上。
5. 将充电器的直流端插入机器后方的电瓶充电插座上。
6. 充电时请支撑住污水箱以利通风。
7. 充电器自动开始充电，若电瓶充满，充电器会自动关闭。
8. 充电结束时，先拔掉接到交流电源上的插头，再将充电器从机器上拔掉。

维护和保养

电瓶保养

 **警告：**机器维修前，请确认机器已关闭或拆除电瓶。

 **警告：**只能由授权的维修中心进行维修。任何由非授权的维修将不在保修之列。

每日维护与保养

1. 拆掉针座 / 刷盘，并用特定清洁剂擦拭干净。
2. 排干污水箱和清水箱内的水，并用清水冲洗干净。检查污水箱内有无碎片，如有请立即清除。
3. 提升水刮离开地面，用湿毛巾擦拭刮条。
4. 拆下浮球滤网装置用清水冲洗。
5. 用特定的清洁剂将本机擦拭干净。
6. 将电瓶充电。
7. 检查刮条边缘是否锋利，如有破损，请掉转使用或更换。

每月维护与保养

1. 检查电瓶顶部是否清洁以防止腐蚀。
2. 检查电瓶连接线是否松脱或腐蚀。
3. 检查污水箱盖密封条，如有破损请更换。
4. 用特定的润滑油润滑所有的润滑部位和转轴。
5. 检查机器紧固件是否松脱。
6. 检查水箱是否漏水。

电机保养

1. 电机保养请联系当地代理商。
2. 每使用 250 小时之后，应检查电机碳刷。若碳刷磨损严重，请联系代理商更换。

 **警告：**火灾或爆炸危险。电瓶释放出氢气。请远离火花或开放式火源。充电时请保持电瓶仓开启。

 **警告：**对电瓶进行保养时，请戴防护手套，避免与电瓶酸性物质接触。

注意：为使本机保持良好的性能，应使电瓶任何时候都是可充电，勿使电瓶长时间处于放电状态。

3. 请遵照本手册中电瓶充电章节进行保养。
4. 电瓶顶端和电极须防腐蚀，可用苏打水防腐蚀，但不得将此溶液进入电池内。
5. 用沾有苏打水的刷子对电瓶和电瓶接线部分进行擦拭。
6. 检查电瓶连线是否磨损和接触件是否有松脱，必要时请更换。

本机储存

1. 储存于室内。
2. 将机器存放在干燥的场所。
3. 直立存放。
4. 提升针座或刷盘离开地面。
5. 提升水刮组件离开地面。
6. 若存放场所极度寒冷，在存放机器前需要将机器保持完全干燥。任何因过低温度造成的损坏不予保修。
7. 排干污水箱。
8. 排干清水箱。

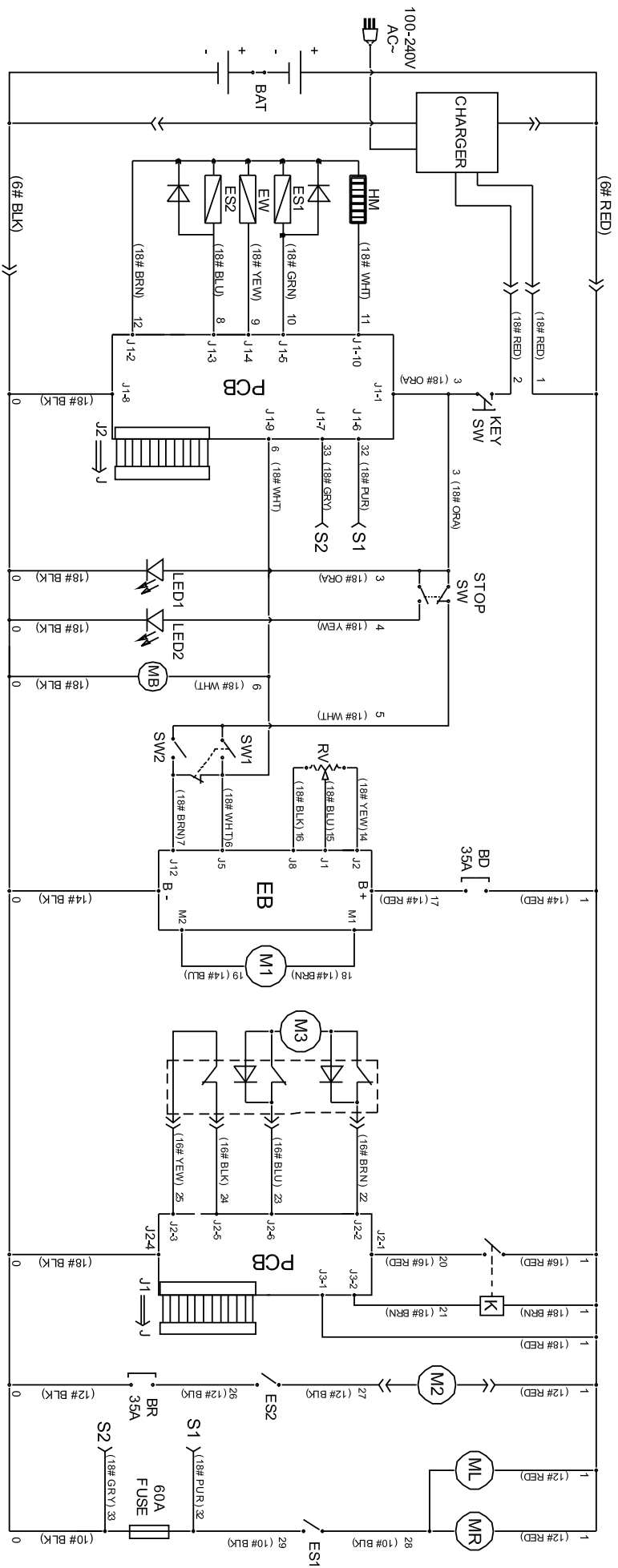
故障排除

| 故障 | 原因分析 | 解决办法 |
|-----------|----------------------|----------------|
| 机器不能运行 | 没有拉开关拉把 | 向后拉动开关拉把 |
| | 电瓶电量不足需要充电 | 充电 |
| | 电瓶损坏 | 更换电瓶 |
| | 电瓶接线松脱 | 拧紧接线 |
| | 紧急停车按钮动作了 | 复位紧急停车按钮 |
| | 主电路板保险丝熔断 | 联系 ICE 代理商 |
| | 电源钥匙开关损坏 | 联系 ICE 代理商 |
| 刷盘电机不能运行 | 刷盘组件升 / 降一键开关被关闭了 | 打开一键开关 |
| | 电瓶电量不足需要充电 | 充电 |
| | 刷盘电机保险烧了 | 更换 60A 保险片 |
| | 刷盘电机过载 (三盏压力指示灯同时闪烁) | 关闭 / 打开刷盘一键开关 |
| | 坏的开关拉把开关 | 联系 ICE 代理商 |
| | 刷盘电机损坏或其线路损坏 | 联系 ICE 代理商 |
| | 刷盘电机碳刷磨损严重 | 联系 ICE 代理商 |
| | 电磁开关损坏 | 联系 ICE 代理商 |
| 机器不能自走 | 钥匙开关没有打开, 没有拉开关拉把 | 打开钥匙开关, 拉动开关拉把 |
| | 驱动电机过载保护器动作 | 复位过载保护器 |
| | 驱动电机或其线路损坏 | 联系 ICE 代理商 |
| | 驱动电机碳刷磨损严重 | 联系 ICE 代理商 |
| 吸力泵不能运行 | 吸力泵过载保护器动作 | 复位过载保护器 |
| | 吸力泵或其线路损坏 | 联系 ICE 代理商 |
| | 吸力泵碳刷磨损严重 | 联系 ICE 代理商 |
| 溶液流量很少或没有 | 球阀开得太小或关闭 | 打开球阀 |
| | 流量开关调得太小或关闭 | 调整流量开关 |
| | 溶液软管或过滤器堵塞 | 用清水冲洗水管或过滤器滤网 |
| | 放水电磁阀堵塞 | 拆开放水电磁阀清洗 |
| 吸水性能差 | 污水箱满 | 排干污水箱 |
| | 放污管堵头松了 | 拧紧放污管堵头 |
| | 浮球滤网装置堵塞 | 冲洗浮球滤网 |
| | 水刮组件堵塞 | 清洗水刮组件 |
| | 水刮刮条磨损 | 调转使用或更换 |
| | 刮条位置不正确 | 调节刮条与地面的高度 |
| | 吸水管没有和水刮组件可靠连接 | 可靠连接吸水管 |
| | 吸水管堵塞 | 清除堵塞物 |
| | 吸水管损坏 | 更换吸水管 |
| | 污水箱盖没盖好 | 盖好 |
| | 污水箱盖密封条 | 更换密封条 |
| | 吸力泵损坏 | 联系 ICE 代理商 |
| | 电瓶电量低 | 充电 |
| 运行时间短 | 电瓶电量低 | 充电 |
| | 电瓶已损坏 | 更换电瓶 |
| | 电瓶需要保养 | 参见电瓶保养 |
| | 电瓶充电器损坏 | 维修或更换充电器 |
| | 刷盘压力太大 | 释放刷盘加压拉把 |

技术参数

| 机型 | I28BT | I32BT |
|----------------|--------------------------------|----------------------|
| 整机尺寸 长 × 宽 × 高 | 1550 X 775 X 1130 毫米 | 1580 X 865 X 1130 毫米 |
| 机器重量 | 160 公斤 | 170 公斤 |
| 机器重量 (装电瓶) | 300 公斤 | 310 公斤 |
| 清水箱容量 | 100 升 / 26.5 加仑 | |
| 污水箱容量 | 120 升 / 31.5 加仑 | |
| 水刮宽度 | 1185 毫米 / 46.5 英寸 | |
| 清洁宽度 | 700 毫米 / 28 英寸 | 800 毫米 / 32 英寸 |
| 工作效率 (理论值) | 2850 平方米 / 小时 | 3250 平方米 / 小时 |
| 驱动方式 | 驱动轴, 24 伏, 200 瓦 | |
| 最大驱动速度 | 清洗: 65 米 / 分钟 运输: 72 米 / 分钟 | |
| 掉头最小通道宽度 | 1600 毫米 | |
| 刷子压力 | 18 公斤 / 36 公斤 / 54 公斤 | |
| 溶液流量 | 0 ~ 1.4 升 / 分钟 | |
| 刷盘电机 | 24 伏, 650 瓦 | |
| 吸力泵 | 24 伏, 600 瓦 | |
| 吸力泵吸力 | 65 in | |
| 电瓶 | 4 个 6V, 260AH @ 20 hr | |
| 每次充电运行时间 | 4 小时 | |
| 直流电压 | 24 伏 | |
| 噪音 | 68 分贝 | |
| 最大爬坡率 | 5% (3 度) | |

WIRING DIAGRAM



BAT: 4.6V Batteries
CHARGER: On board battery charger
KEY SW: Main power Key switch
HM: Hour meter
ES1: Brush motor solenoid switch
EW: Solution solenoid valve switch
ES2: Vacuum motor relay
PCB: Function electronic board
STOP SW: Emergency stop switch
MB: Electromagnetic Brake
LED1: Running lights
LED2: Emergency stop lights

BD: Driver motor circuit breaker
RV: Speed potentiometer
SW1: Control switch, forward
SW2: Control switch, backward
EB: Speed control board
M1: Traction motor
K: Relay
M3: Scrub head lifting motor
BR: Vacuum motor circuit breaker
M2: Vacuum motor
ML: Brush motor, left
MR: Brush motor, right

BAT: 4.6V 电瓶
CHARGER: 车载充电器
KEY SW: 主电源钥匙开关
HM: 计时器
ES1: 刷盘电机电磁开关
EW: 放水电磁阀开关
ES2: 吸力泵继电器
PCB: 主电路板
STOP SW: 急停开关
LED1: 工作指示灯
LED2: 紧急停车指示灯
MB: 电磁刹车机构

BD: 驱动电机过载保护器
RV: 调速电位器
SW1: 前进拉把开关
SW2: 后退拉把开关
EB: 速度控制板
M1: 驱动电机
K: 刷盘提升控制继电器
M3: 刷盘提升电机
BR: 吸力泵过载保护器
M2: 吸力泵
ML: 左刷盘电机
MR: 右刷盘电机