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Operator & Parts Manual



8230901 REV.01(01-2024)

OPERATOR MANUAL

READ OPERATOR MANUAL CAREFULLY!

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

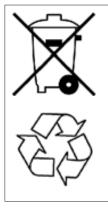
Please fill out at time of installation for future reference.

| lodel No. |
|---------------------|
| Serial No. |
| Achine Options |
| Sales Rep. |
| Sales Rep. Phone No |
| Customer ID Number |
| nstallation Date |

HOW TO ORDER PARTS

Only use ICE Cobotics 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.
- 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.

ICE Cobotics (GuangDong) Company Limited

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Specifications and parts are subject to change without notice.

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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.

OPERATOR MANUAL

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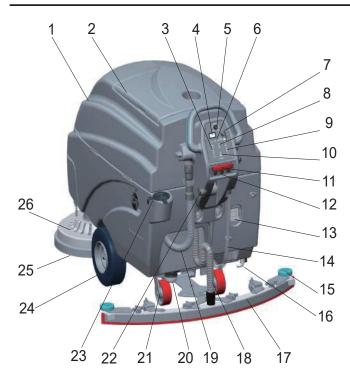
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- 1. Recovery Tank
- 2. Recovery Tank Cover
- 3. Brush Pressure Adjusting Buttons & Indicator Light
 - + Brush Pressure Increase Button
 - Brush Pressure Decrease Button
- 4. Hour Meter
- 5. Speed Control Knob
 - Slow Speed
 - Fast Speed
- 6. Battery Meter
- 7. Main Power Key Switch
- 8. 1-STEP Scrub Head Up/Down Switch & Indicator Light
- 9. Solution Flow Control Buttons & Indicator Light
 - + Solution Flow Increase Button
 - Solution Flow Decrease Button
- 10. Vacuum Motor Switch & Indicator Light
- 11. Emergency Stop Button
- 12. Drive Motor Circuit Breaker
- 13. On-board Charger
- 14. Solution Tank Level / Drain Hose
- 15. Bumper Rollers
- 16. Ball Valve
- 17. Squeegee Assembly

18. Squeegee Vacuum Hose

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- 19. Recovery Tank Drain Hose
- 20. Filter Assembly

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21. Caster, 5 Inch

27

28

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- 22. Squeegee Lift Lever
- 23. Hose Fill-port
- 24. Wheels,12 Inch
- 25. Scrub Head Skirt
- 26. Disk Scrub Head
- 27. Control Handle Start Bail
 - Direction Decal
- 28. Recovery Tank Support Stand
- 29. Vacuum Motor, 36VDC
- 30. Vacuum Motor Circuit Breaker
- 31. Connector, 175A
- 32. Bucket Fill Port/ Clean-Out Port
- 33. Led Light
- 34. Brush & Pad Realease Plunger
- 35. Scrub Head Adjusting Bolt
- 36. Brush Motor, 36VDC
- 37. Front Cover
- 38. Batteries
- 39. Solution Tank
- 40. Logo, ICE
- 41. Caster, 2 Inch, Squeegee

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
- 6-6V 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.

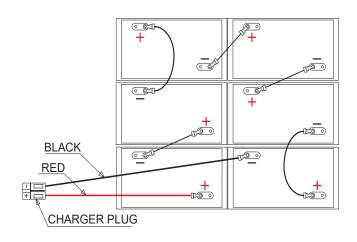
Recommended Battery spec:

6-6V, 260AH@20HR OR 330AH@20HR deep cycle batteries.

Max. batteries dimensions :

590mm (L) X 534mm (W) X 365mm (H)

- 1. Turn the main power key switch off.
- 2. Open recovery tank to gain access to battery compartment.
- 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!
- 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.



 To remove the pad driver or brush, raise the scrub head and push the pad release plunger (see machine components, item #34) downward.

MOUNTING THE SQUEEGEE ASSEMBLY

- 1. Lift the squeegee lift lever (see machine components, item #22)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.

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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 #32)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 # 7)to the on (I) position.
- Check the battery level meter (see machine components, item # 6), 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, # 8), 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 # 22).
- Check the solution flow indicator (see machine components, item #9), 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 #10).

- Pull the control handle bail (see machine components, item #27) 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 #5) to a desired speed. *NOTE:* 45-60 meters (150-200 ft)per minute is the recommended scrubbing speed. Simply press the pressure adjusting button to increase(+) or decrease(-)the brush pressure as needed.(see machine components, item #3)
- The brush pressure can be adjusted, press the Brush pressure increase/ decrease button (Panel components, item #3,#6) to get a desired brush pressure.
- 10. To stop scrubbing, release the control handle bail, turn off the 1-STPE switch to raise the scrub head assembly, raise he squeegee assembly.

WHILE OPERATING MACHINE

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

- 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 #6). 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.

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 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 #12, item# 30) 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 50A fuse to protect the brush motors from damage. When replacing a fuse never substitute a higher Amps rated fuse than specified.

HOUR METER

The hour meter (see machine components, item #4) 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 #27) or strike the Emergency stop button (see machine components, item #11), 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 shutoff screen and cause damage to the vacuum motor.

- 1. While holding the drain hose (see machine components, item #19) 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 #14) 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 apprved chargers with the following specifications:

- Automatic shut off circuit
- Deep cycle charging
- Output current of 20-30 Amps
- Output voltage of 36 volts

ON-BOARD BATTERY CHARGER

As standard configuration, the machine is equiped 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 #28) 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 #28) 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 automatically 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 enance on the machine, be sure that the power is turned off, or the batteries are disconnected!

WARING: Repairs are to be completed thorized 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. Open cecovery tank cover.Recover the vacuum fan filter and rinse it out with low pressure water if dirty.



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- 4. Raise the squeegee assembly off floor and wipe it down with a damp towel. Be sure to store the squeegee in the up position.
- 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.
- Inspect and clean the recovery tank cover seal. Replce 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.
- 7. Battery must be stored in a charged state, please charge monthly.

MOTOR MAINTENANCE

- 1. Contact your local Distributor for any motor maintenance.
- 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 o fire can result. Keep sparks and fire away from batteries at all times.

WARNING: Whenever serviving 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.
- 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.

- Use a wire brush with the baking soda solution to properly clean the battery posts and connctions.
- 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.

PUSHING OR TOWING THE MACHINE

If the machine becomes disabled, it can be pushed from the front or rear, but only tow it from the rear.

WARNING: When servicing machine, do not push or tow the machine on inclines with the brake disabled.

Before attempting to push or tow the machine,disengage the brake as described below.To disengage the brake,you can turn the electronic brake lever to the other side.



CYLINDRICAL BRUSH MODEL

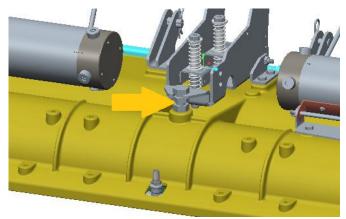
INSTALL BRUSH

- 1. Raise scrub head off the floor and turn off the power.(remove key)
- 2. Remove brush door from scrub head by loosening the knob.
- 3. Attach brush door to the brush end that has the double row of bristles to install brush.
- 4. Check the brushes to ensure they are properly adjusted.

INSPECT THE BRUSH PATTERN

After installing a new set of cylindrical brushes check the brush pattern to ensure proper brush adjustment.

- Measure the distance from the front edge of the scrub head to the floor and from the back edge of the scrub head to the floor. The measurements should be the same.
- 2. To level the scrub head, loosen the lock nut and turn the leveling screw clockwise to lower the rear of the scrub head or counter--clockwise to lower the front.



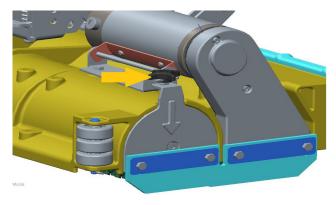
- 3. Position the machine on a dry dusty floor or apply a powdered substance, such as chalk.
- 4. Adjust the speed control knob to "zero"(
- 5. Shut off the solution flow.
- 6. Pull the control handle bail to create a brush pattern on the floor.
- 7. Raise the scrub head and pull the machine away.
- 8. Observe the brush pattern on floor. If the brush pattern is uneven or tapered, adjustment is required.

Correct Brush Pattern

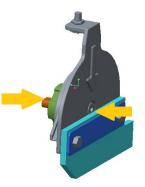


TO ADJUST A TAPPERED BRUSH PATTERN

1. Remove the brush door from the brush.



2. Hold the brush plug shaft with a wrench and loosen the 6mm hex screw.



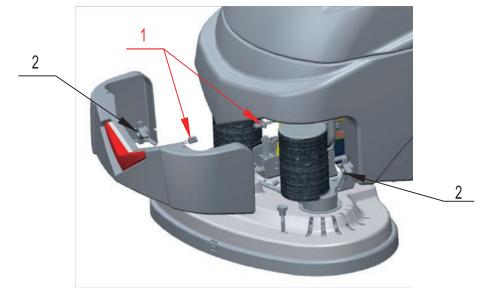
- 3. To lower the brush end, turn the shaft clockwise for the front brush and counter--clockwise for the rear brush. Retighten hex screw.
- Recheck brush pattern. NOTE: Replace brushes when worn to 5/8" (15mm).

Cylindrical Assembly Instructions

Lower scrub head to the ground, then turn off the power (remove key).

STEP#1: Remove Front Cover

- 1.Remove knob(2) from solution tank.
- 2.Disconnect cable(1) of the led light.
- 3.Remove front cover from solution tank

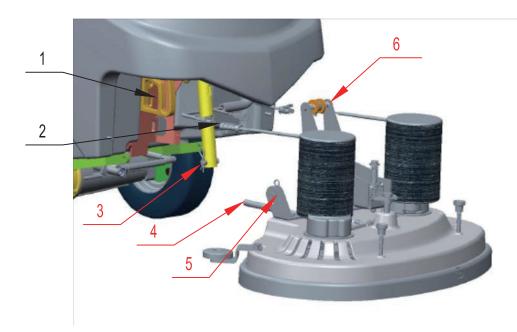


STEP#2: Remove Disc Scrub Head Assembly

1.Remove cotter pin and pins(5) from scrub head lift bracket.then remove cotter pin

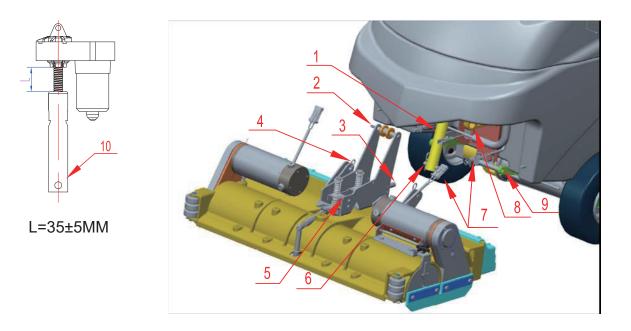
and pin(3) from spring bracket.

- 2.Remove lock nut and hex bolt(6) from roller guide(1).
- 3.Disconnect motor power cords(2).
- 4.Loose clamp on the solenoid valve and remove tubing(4).
- 5.Remove scrub head assembly.



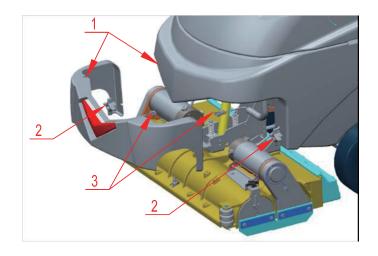
STEP#3: Assembly Cylindrical Scrub Head Group

- 1. Adjust initial position of sleeve nut(10) on the actuator(1) to right place(L) by rotating manually.
- 2. Place cylindrical scrub head under solution tank.
- 3. Connect tubing(3) and fasten clamp.
- 4. Insert pins into cylindrical scrub head lift bracket(4) through arm(9) installing on the frame, and place cotter pin into holes on the pin.
- 5. Insert pin into spring bracket(5) through sleeve nut installing on the actuator, and place cotter pin into holes on the pin(6).
- 6. Insert hex bolt into roller guide(8) through lfiting bracket and fasten lock nut(2).
- 7. Connect motor power cords(7).



STEP#4: Assembly Front Cover

- 1. Connect cable of the led light(3).
- 2. Install front cover through stud fixing(1) on solution tank.
- 3. Fasten the knobs(2).



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BASIC TROUBLESHOOTING

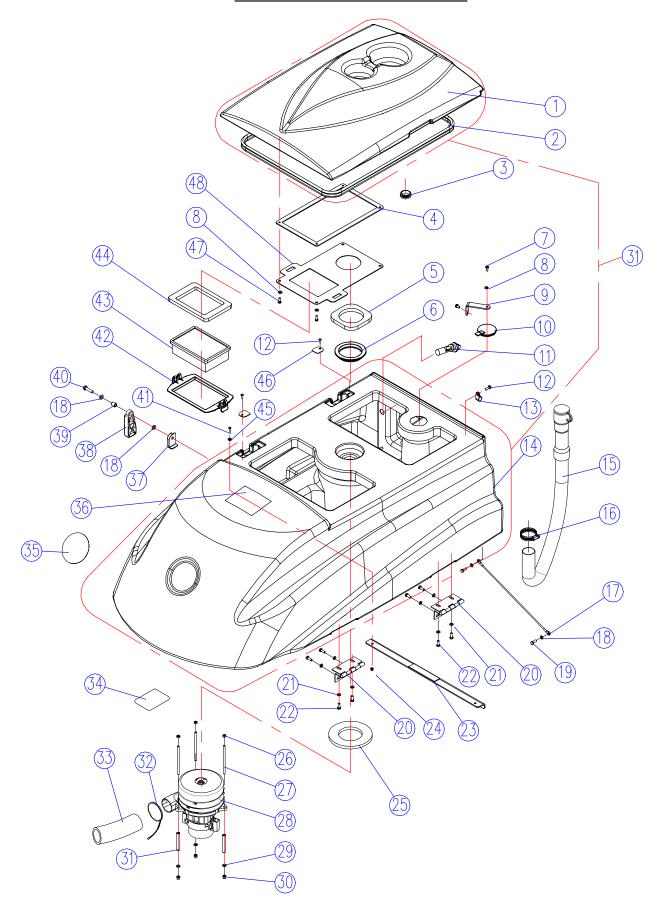
| PROBLEM | CAUSE | SOLUTION |
|-----------------------|--|--|
| | Control handle bail not pulled | Pull control handle bail |
| | Batteries need to be charged | Charge batteries |
| | Bad battery(s) | Replace battery(s) |
| Machine will not | Loose battery cable | Tighten loose cable |
| operate | Emergency stop button activated | Reset Emergency stop botton |
| | Main PCB fuse blown | Contact ICE service center |
| | Faulty key switch | Contact ICE service center |
| | 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 50A current transformer |
| Brush motor will | Brush motors over load | Turn on / off the 1-STEP switch |
| not operate | 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 |
| | The Main Power Key Switch be Turned off, the | Turn on the Key switch, Pull the control |
| | Control handle bail not pulled | handle bail |
| Machine does | Tripped drive motor circuit breaker | Reset drive motor circuit breaker button |
| not propel | Faulty transaxle motor or wiring | Contact ICE service center |
| | Worn Motor carbon brushes | Contact ICE service center |
| | Recovery tank is full | Drain recovery tank |
| Vacuum motor | Tripped vacuum motor circuit breaker | Reset vacuum circuit breaker button |
| will not operate | Faulty vacuum motor or wiring | Contact ICE service center |
| | Worn Motor carbon brushes | Contact ICE service center |
| | Ball valve set too low or shut off | Turn on the ball valve |
| Little or no | Solution flow control knob set too low or shut off | Adjust solution control flow knob |
| solution flow | Clogged solution tank filter or solution | Clean solution tank filter or flush out |
| | hose | solution hose |
| | Clogged solution Solenoid valve | Remove valve and clean |
| | Recovery tank is full | Drain recovery tank |
| | Loose drain hose cap | Tighten cap |
| | Clogged filter located in recovery tank cover | Clean filter |
| | Clogged squeegee assembly | Clean squeegee assembly |
| | Worn squeegee blades | Replace or rotate squeegee blades |
| De en weter niek | Incorrect squeegee blade def ection | Adjust squeegee blade height |
| Poor water pick up | 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 vacuum motor | Contact ICE service center |
| | Low battery charge | Recharge batteries |
| | Low battery charge | Fully recharge batteries |
| | Defective batteries | Replace batteries |
| Short run time | Batteries need maintenance | See BATTERY MAINTENANCE |
| | Faulty battery charger | Repair or replace battery charger |
| | Down pressure lever is set for extra scrub | Lower down pressure lever |
| | head pressure | |

OPERATOR MANUAL

TECHNICAL SPECIFICATIONS

| MODEL | i36BT |
|--|--|
| DIMENSIONS L X W X H | 1650 X 865 X 1130 mm |
| WEIGHT | 185Kg |
| WEIGHT WITH BATTERIES | 440 Kg |
| SOLUTION TANK CAPACITY | 118 L / 31Gal |
| RECOVERY TANK CAPACITY | 120 L / 31.5 Gal |
| SQUEEGEE WIDTH | 1185 mm / 46.5 in |
| CLEANING PATH WIDTH | 800mm / 32 in |
| PRODUCTIVITY RATE | 3250 m² h |
| DRIVE SYSTEM | Transaxle, 36VDC, 350W |
| TRAVEL SPEED, MAXIMUM | Cleaning: 65m/Min Transporting: 72 m/Min |
| MINIMUM ALSLE TURN | 1600mm |
| PAD/BRUSH PRESSURE | 40kg / 65kg / 90kg |
| CYLINDRICAL PRESSURE | 40kg |
| SOLUTION FLOW RATE | 0 ~ 3200ml/Min |
| BRUSH MOTOR(S) | 650WX2,36VDC |
| BRUSH DIAMETER-SPEED | 406mmx2,200RPM |
| CYLINDRICAL BRUSH MOTOR(S) | 560WX2, 36VDC |
| CYLINDRICAL (LXD)-SPEED | 800X150mmX2,750RPM |
| VACUUM MOTOR | 600W,36VDC |
| WATER LIFT - AIR FLOW | 73 inch |
| BATTERIES | 6 - 6V, 260AH optional 305AH @ 20 hr |
| RUN TIME PER CHARGE | 4 or 4.5 Hours |
| VOLTAGE DC | 36V |
| DECIBEL RATING AT OPERATOR'S EAR, INDOORS | 68 dB(A) |
| GRADE LEVEL, MAX | 10% (6°) |

RECOVERY TANK GROUP



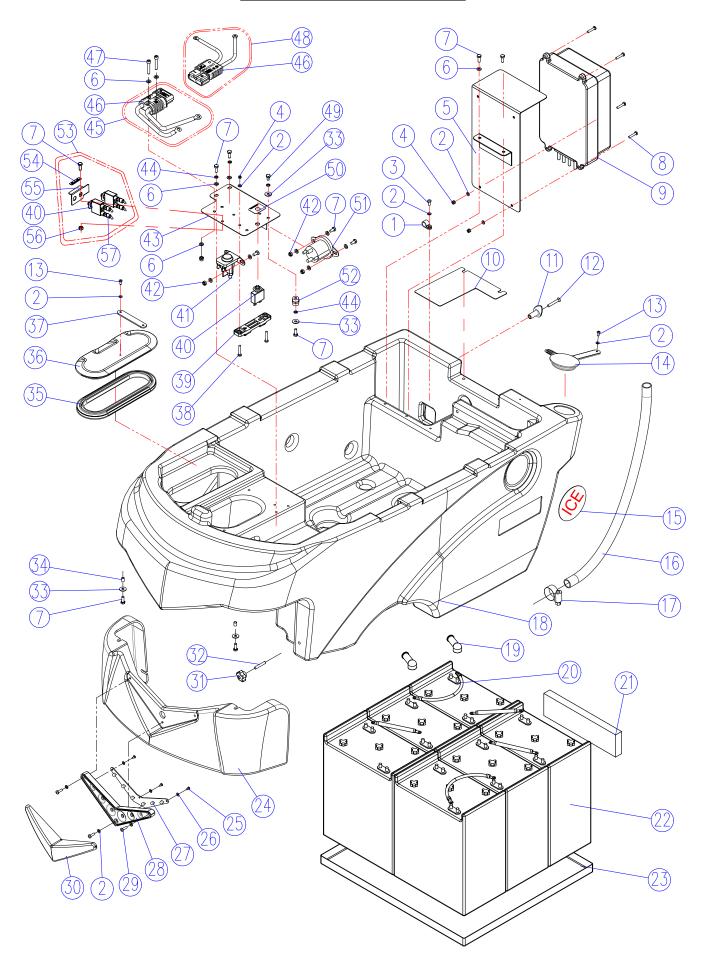
RECOVERY TANK GROUP

| DIA NO. | PART NUMBER | SERIA | LNUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------|--------------|--|--------------|
| | | 100175- | for i36BT | RECOVERY TANK COVER | |
| 1 | 8230103 | - | for i36BT-CY | | - 1 |
| I | 0230103 | -100174 | for i36BT | RECOVERY TANK COVER(Before modification) | |
| | | -100161 | for i36BT-CY | | |
| 2 | 8230201A | | | SEAL | 1 |
| 3 | 8011005 | | | САР | 1 |
| 4 | 8230209 | | | GASKET | 1 |
| 5 | 8230208 | | | GASKET, SCREEN | 1 |
| 6 | 8230204 | | | SCREEN | 1 |
| 7 | 1321213 | | | SELF-TAPPING SCREW,ST4.2 X 13 | 2 |
| 8 | 1421510 | | | WASHER,M5 X 10 X 1 | 9 |
| 9 | 8113007 | | | STRIP | 1 |
| 10 | 8131003 | | | САР | 1 |
| 11 | 8310238 | | | SENSOR, LEVEL, LIQUID, | 1 |
| 12 | 1221512 | | | SCREW,M5X12 | 3 |
| 13 | 8113009 | | | CLAMP | 1 |
| | | 100175- | for i36BT | RECOVERY TANK | |
| 14 | 0000400 | - | for i36BT-CY | | 1 |
| 14 | 8230102 | -100174 | for i36BT | | - 1 |
| | | -100161 | for i36BT-CY | RECOVERY TANK(Before modification) | |
| 15 | 8131030 | | | DRAIN HOSE | 1 |
| 16 | 1962050 | | | CLAMP | 1 |
| 17 | 8230205 | | | CABLE | 1 |
| 18 | 1421816 | | | FLAT WASHER,M8 X 16 X 1.6 | 4 |
| 19 | 1021820 | | | HEX BOLT,M8 X 20 | 2 |
| 20 | 8111300 | | | HINGE ASSEMBLY | 2 |
| 21 | 1421618 | | | FLAT WASHER,M 6 X 18 X 1.6 | 8 |
| 22 | 1021616 | | | HEX BOLT,M6 X 16 | 8 |
| 00 | 0000405 | 100143- | for i36BT | | 1 |
| 23 | 8230135 | 100159- | for i36BT-CY | BRACKET,RECOVERY TANK | 1 |
| 24 | 1123507 | | | LOCK NUT,M5 | 2 |
| 25 | 8112005 | | | GASKET, VACUUM MOTOR | 1 |
| 26 | 1121605 | | | HEX NUT,M6 | 3 |
| 27 | 8210209 | | | STUD,M6 X 110 | 3 |
| 28 | 8230200 | | | 3 STAGE VACUUM MOTOR,36VDC,640W,KIT | 1 |
| 29 | 1421612 | | | FLAT WASHER,M6 X 12 X 1.6 | 5 |
| 30 | 1123608 | | | LOCK NUT,M6 | 3 |
| 31 | 8230110 | | | KIT,RECOVERY TANK(Replace the old version) | 1 |

RECOVERY TANK GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|-----------------------------|--------------|
| 31 | 8210216 | | BUSHING | 3 |
| 32 | 1914300 | | TIE, NYLON, 5 X 300 | 1 |
| 33 | 8132007 | | MUFFLER, VACUUM MOTOR | 1 |
| 34 | 8230126 | | LABEL, BATTERY INSTALLATION | 1 |
| 35 | 4010316 | | ICE LOGO | 1 |
| 36 | 8111022 | | WARNING LABEL | 1 |
| 37 | 8111008 | | BRACKET | 1 |
| 38 | 8111007 | | RECOVERY TANK SUPPORT | 1 |
| 39 | 8115404 | | SLEEVE, P/M | 1 |
| 40 | 1021830 | | HEX BOLT,M8 X 30 | 1 |
| 41 | 1221510 | | SCREW,M5 X 20 | 2 |
| 42 | 8230210 | | BRACKET,FILTER | 1 |
| 43 | 8320237 | | FILTER,DUST | 1 |
| 44 | 8310230 | | GASKET, FILTER | 1 |
| 45 | 1421511 | | FLAT WASHER,M5 X 12 X 1 | 2 |
| 46 | 8111016 | | PLATE | 2 |
| 47 | 1221510 | | SCREW,M5 X 10 | 6 |
| 48 | 8230207 | | PLATE | 1 |

SOLUTION TANK GROUP



SOLUTION TANK GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|--|----------------------------------|--------------|
| 1 | 6210131 | | NYLON, CLAMP | 6 |
| 2 | 1421510 | | FLAT WASHER,M5 X 10 X 1 | 20 |
| 3 | 1221512 | | SCREW,M5 X 12 | 9 |
| 4 | 1123507 | | LOCK NUT,M5 | 6 |
| 5 | 8230114 | | BRACKET, ON BOARD CHARGER | 1 |
| 6 | 1421612 | | FLAT WASHER,M6 X 12 X 1.6 | 14 |
| 7 | 1021616 | | HEX BOLT,M6 X 16 | 13 |
| 8 | 1221525 | | SCREW,M5 X 25 | 4 |
| | 8230117-US | | ON BOARD CHARGER,36VDC,KIT [US] | 1 |
| 9 | 8230131-K | | ON BOARD CHARGER,36VDC,KIT [EU] | 1 |
| | 8230132 | | ON BOARD CHARGER,36VDC,KIT [UK] | 1 |
| 10 | 8230127 | | PLATE | 1 |
| 11 | 8210112 | | HOOK, CORD | 2 |
| 12 | 1222641 | | SCREW,M6 X 40 | 2 |
| 13 | 1321213 | | SELF-TAPPING SCREW,ST4.2 X 13 | 2 |
| 14 | 8210113 | | CAP, SOLUTION FILL | 1 |
| 15 | 4010316 | | ICE LOGO | 2 |
| 10 | 8230134 | 100175- for i36BT - for i36BT-CY | CLEAN TUBING | |
| 16 | 8210145 | -100174 for i36BT -100161for i36BT-CY | HCLEAN TUBING(OLD) | - 1 |
| 17 | 1962025 | | CLAMP,16 - 25mm | 1 |
| 18 | 8230101 | | SOLUTION TANK | 1 |
| 19 | 8114753 | | JACKET, BATTERY TERMINAL, BLACK | 12 |
| 20 | 8230705 | | BATTERY CONNECT CABLE, BLACK | 5 |
| 21 | 8113013 | | SPACER, BATTERY | 4 |
| | 8210105 | | BATTERY, 260AH @ 20Hr | 6 |
| 22 | 8230120 | | BATTERY, 305AH @ 20Hr (OPTIONAL) | 6 |
| 23 | 8230121 | | BATTERY TRAY | 1 |
| 24 | 8230104 | | COVER, FRONT | 1 |
| 25 | 1321110 | | SELF-TAPPING SCREW,ST3.5 X 10 | 3 |
| 26 | 1421409 | | FLAT WASHER,M4 X 9 X 0.8 | 3 |
| 27 | 8230750 | | LED LIGHT,36V,KIT | 1 |
| 28 | 8133601 | | LED LIGHT MOUNTING BASE | 1 |
| 29 | 1221520 | | SCREW,M5 X 20 | 3 |
| 30 | 8133602 | | LED LIGHT COVER | 1 |

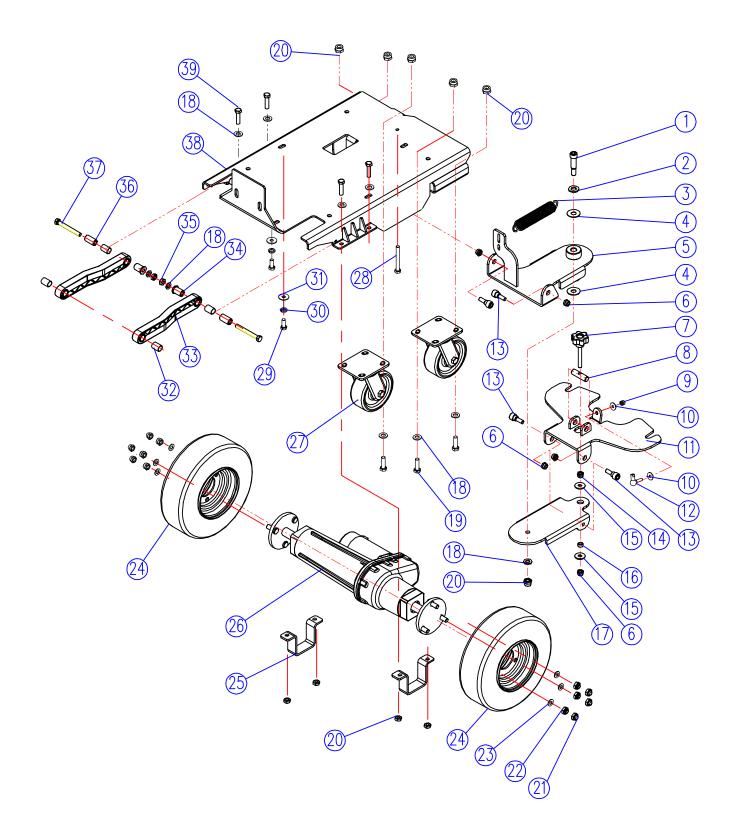
SOLUTION TANK GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|-------------------------------------|--------------|
| 31 | 8210518 | | KNOB, M8 | 2 |
| 32 | 1535830 | | SET SCREW,M8 X 30 | 2 |
| 33 | 1421618 | | PLAIN WASHER ,M6 X 18 X 1.6,SS | 6 |
| 34 | 8113112 | | BUSHING | 2 |
| 35 | 8113030 | | SEAL | 1 |
| 36 | 8113002 | | COVER | 1 |
| 37 | 8113007 | | STRAP | 1 |
| 38 | 1221520 | | SCREW,M5 X 20 | 2 |
| 39 | 8230711 | | CURRENT TRANSFORMER, 50A | 1 |
| 40 | 8114703 | | CIRCUIT BREAKER, 35A | 3 |
| 41 | 8230708 | | SOLENOID SWITCH, 36VDC | 1 |
| 42 | 1123608 | | LOCK NUT, M6 | 4 |
| 43 | 8230128 | | BRACKET, SOLENOID SWITCH | 1 |
| 44 | 1422616 | | LOCK WASHER, M6 | 6 |
| 45 | 8230707 | | KIT, BATTERY CONNECT CABLE | 1 |
| 46 | 8230714 | | CONNECTOR, SB175-GREY | 2 |
| 47 | 1521635 | | SCREW, HEX SOCKET, M6 X 35 | 2 |
| 48 | 8230706 | | KIT, BATTERY CONNECT CABLE | 1 |
| 49 | 1021610 | | HEX BOLT, M6 X 10 | 2 |
| 50 | 8144024 | | LABEL, CIRCUIT BREAKER | 2 |
| 51 | 8230702 | | SOLENOID SWITCH, 36VDC | 1 |
| 52 | 8114705 | | STAND-OFF, M6, RED | 2 |
| 53 | 8230013 | | BRUSH MOTOR OVERLOAD PROTECTION KIT | 1 |
| 54 | 8230012 | | BREAKER STICKER | 1 |
| 55 | 8230011 | | BREAKER FIXED PLATE | 1 |
| 56 | 1123608 | | LOCK NUT M6 | 1 |
| 57 | 1883020 | | TERMINAL BLOCK | 4 |

NOTES:

NO.53,8230013,the BRUSH MOTOR OVERLOAD PROTECTION KIT,Also contains stickers 8230014 1pc and 8230015 1pc.(see P25).

FRAME & DRIVE GROUP



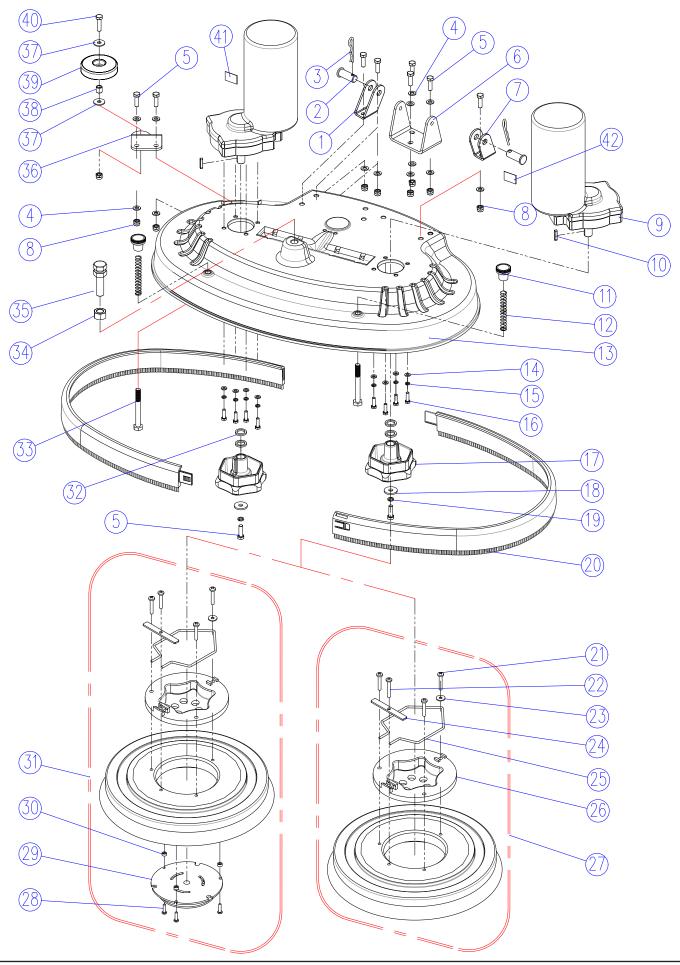
FRAME & DRIVE GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|--------------------------------------|--------------|
| 1 | 8211505 | | SHOULDER BOLT,M12 X 30 X M10 | 1 |
| 2 | 1421312 | | FLAT WASHER,M12 X 32 X 1.5 | 1 |
| 3 | 8210508 | | SPIRNG | 1 |
| 4 | 8135001 | | PLASTIC THRUST WASHER,M12 X 30 X 1.5 | 2 |
| 5 | 8211501 | | BRACKET, SQGE LIFT | 1 |
| 6 | 1123810 | | LOCK NUT,M8 | 7 |
| 7 | 8211507 | | KNOB, M8 | 1 |
| 8 | 8211506 | | PIN | 1 |
| 9 | 1123608 | | LOCK NUT,M6 | 5 |
| 10 | 1421618 | | FLAT WASHER,M6 X 18 X 1.6 | 2 |
| 11 | 8210503 | | BRACKET, SQGE MNTG | 1 |
| 12 | 8114511 | | BALL JOINT,M6 | 1 |
| 13 | 8211504 | | SHOULDER BOLT,M12 X 7 X M8 | 4 |
| 14 | 1121807 | | NUT,M8 | 1 |
| 15 | 1421824 | | FLAT WASHER,M8 X 24 X 2 | 4 |
| 16 | 8211508 | | BUSHING | 1 |
| 17 | 8230512 | | BRACKET, SWING | 1 |
| 18 | 1421020 | | FLAT WASHER,M10 X 20 X 2 | 15 |
| 19 | 1021030 | | HEX BOLT,M10 X 30 | 8 |
| 20 | 1123012 | | LOCK NUT,M10 | 13 |
| 21 | 1124111 | | NUT,CAP | 6 |
| 22 | 1123111 | | LOCK NUT,7/16"- 20UNF | 6 |
| 23 | 1421120 | | FLAT WASHER,M12.1 X 20 X 2 | 6 |
| 0.4 | 8230129 | | WHEEL,12", FOAM FILL | 2 |
| 24 | 8230116 | | WHEEL,12", PNEUMATIC (OPTIONAL) | 2 |
| 25 | 8230118 | | BRACKET, TRANSAXLE MOUNTING | 2 |
| 00 | 8230810 | | TRANSAXLE, 36VDC,KIT | 1 |
| 26 | 8230811 | | ELECTRIC BRAKE KIT | 1 |
| 27 | 8230119 | | 5",CASTER | 2 |
| 28 | 1022809 | | HEX BOLT,M8 X 90 | 1 |
| 29 | 1021820 | | HEX BOLT,M8 X 20 | 5 |
| 30 | 1422821 | | LOCK WASHER,M8 | 5 |

FRAME & DRIVE GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------------|-----------------------------------|--------------|
| 31 | 1421828 | | FLAT WASHER,M8 X 28 X 2 | 5 |
| 32 | 8310144 | 100293- for i36B | | 4 |
| 52 | 0310144 | - for i36BT-C | Y | 4 |
| | 8310118 | 100293- for i36B | T ARM, SCRUB HEAD LIFTING | |
| 33 | 0310110 | - for i36BT-C | ARM, SCRUB HEAD LIFTING Y | 2 |
| 33 | 8210115 | -100292 for i36B | T ARM, SCRUB HEAD LIFTING(OLD) | 2 |
| | 0210115 | -100161 for i36BT-C | Y | |
| 34 | 0000400 | 100293- for i36B | T T-BUSHING | 2 |
| 34 | 8230136 | - for i36BT-C | | |
| 35 | 1123012 | | LOCK NUT,M10 | 2 |
| | 8230137 | 100293- for i36B | r —BUSHING | |
| 36 | | - for i36BT-C | | 2 |
| 30 | 8210116 | -100292 for i36B | | 2 |
| | | -100161 for i36BT-C | HBUSHING(OLD) | |
| 37 | 1032090 | 100293- for i36B | T HEX BOLT,M10 X 90 | 2 |
| 37 | 1032090 | - for i36BT-C | Y | 2 |
| | 0000140 | 100293- for i36B | r FRAME | 1 |
| 38 | 8230140 | - for i36BT-CY | | 1 |
| 30 | 922010F | -100292 for i36B | | 1 |
| | 8230105 | -100161 for i36BT-C | FRAME(OLD) Y | |
| 39 | 1021025 | | HEX BOLT,M10 X 25 | 4 |

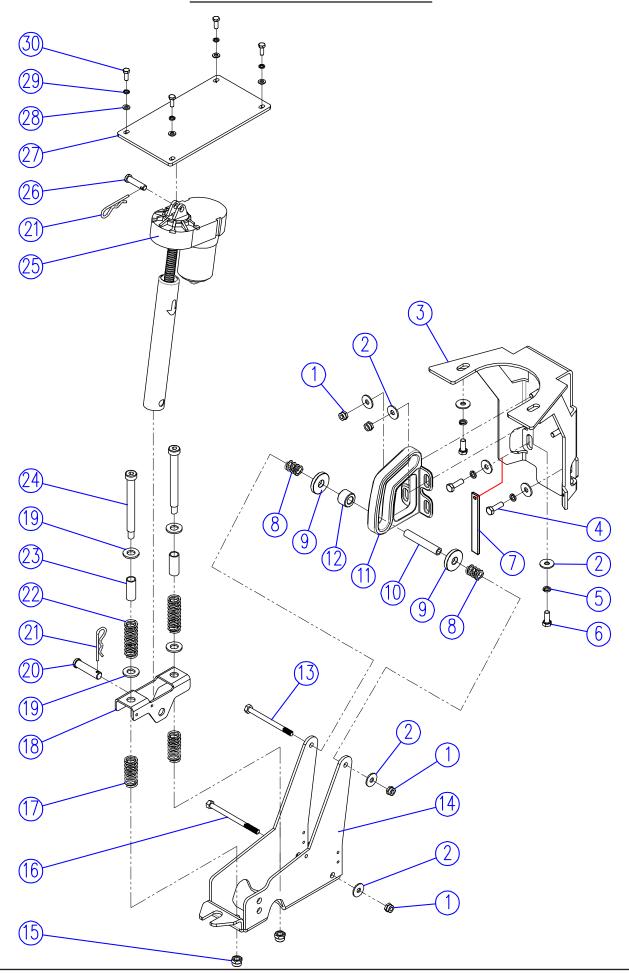
SCRUB HEAD GROUP



SCRUB HEAD GROUP

| DIA NO. | PART NUMBER | SERIAL | NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------|-----------|--------------------------------------|--------------|
| 1 | 8230830 | 100293- | for i36BT | BRACKET, SCRUB HEAD LIFT, RIGHT | 1 |
| 1 | 8210830 | -100292 | for i36BT | BRACKET, SCRUB HEAD LIFT, RIGHT(OLD) | 1 |
| 2 | 8230138 | 100293- | for i36BT | PIN | 2 |
| Ζ | 8210807 | -100292 | for i36BT | PIN(OLD) | 2 |
| 3 | 8210309 | | | PIN, COTTER | 2 |
| 4 | 1421816 | | | FLAT WASHER,M8 X 16 X 1.6 | 14 |
| 5 | 1021825 | | | HEX BOLT,M8 X 25 | 11 |
| 6 | 8210806 | | | BRACKET, ACTUATOR MNTG | 1 |
| 7 | 8230820 | 100293- | for i36BT | BRACKET, SCRUB HEAD LIFT, LEFT | 1 |
| 7 | 8210820 | -100292 | for i36BT | BRACKET, SCRUB HEAD LIFT, LEFT(OLD) | 1 |
| 8 | 1123810 | | | LOCK NUT,M8 | 10 |
| 9 | 8230300 | | | BRUSH MOTOR, 36VDC, 630W, KIT | 2 |
| 10 | 1655025 | | | KEY, 5 X 5 X 25 | 2 |
| 11 | 8210808 | | | KNOB, M10 | 2 |
| 12 | 8210809 | | | SPRING | 2 |
| 40 | 8230139 | 100293- | for i36BT | HOUSING, SCRUB HEAD,i36BT | 1 |
| 13 | 8230301 | -100292 | for i36BT | HOUSING, SCRUB HEAD,i36BT(OLD) | 1 |
| 14 | 1421612 | | | FLAT WASHER,M6 X 12 X 1.6 | 8 |
| 15 | 1422616 | | | LOCK WASHER, M6 | 8 |
| 16 | 1021620 | | | HEX BOLT,M6 X 20 | 8 |
| 17 | 8210805 | | | HUB, BRUSH DRIVE | 2 |
| 18 | 1421828 | | | FLAT WASHER,M8 X 28 X 3.0 | 2 |
| 19 | 1422821 | | | LOCK WASHER,M8 | 2 |
| 20 | 8218050 | | | BUMPER, SCRUB HEAD | 2 |
| 21 | 1221635 | | | SCREW, M6 X 35 | 12 |
| 22 | 1221640 | | | SCREW, M6 X 40 | 4 |
| 23 | 1421618 | | | FLAT WASHER,M6 X 18 X 1.6 | 4 |
| 24 | 8210861 | | | RETAINER BAR | 4 |
| 25 | 8210862 | | | SPRING, G-400S | 4 |
| 26 | 9000004 | | | CLUTCH, G-400S | 4 |
| 27 | 9050016 | | | BRUSH ASSEMBLY, 16 INCH | 2 |
| 28 | 1321325 | | | SELF-TAPPING SCREW, ST5 X 25 | 6 |
| 29 | 9000003 | | | CENTER LOCK, #3 | 2 |
| 30 | 8116040 | | | SPACER, 6.5 X 14.5 X 7.0 | 6 |
| 31 | 9040016 | 1 | | PAD DRIVER, 15 INCH | 2 |
| 32 | 8210804 | 1 | | SPACER | 4 |
| 33 | 1022090 | | | HEX BOLT,M10 X 90 | 2 |
| 34 | 1111215 | 1 | | HEX NUT, M16 | 1 |
| 35 | 8210811 | | | AJUSTMENT STUD, M16 | 1 |
| 36 | 8210810 | 1 | | BRACKET, ROLLER MNTG | 1 |
| 37 | 1421824 | 1 | | FLAT WASHER,M8 X 24 X 2 | 2 |
| 38 | 8115404 | 1 | | SLEEVE, P/M | 1 |
| 39 | 8116009 | | | PROTECTIVE WHEEL | 1 |
| 40 | 1021830 | 1 | | HEX BOLT,M8 X 30 | 1 |
| 41 | 8230014 | | | BRUSH MOTOR LABEL 01 | 1 |
| 42 | 8230015 | | | BRUSH MOTOR LABEL 02 | 1 |

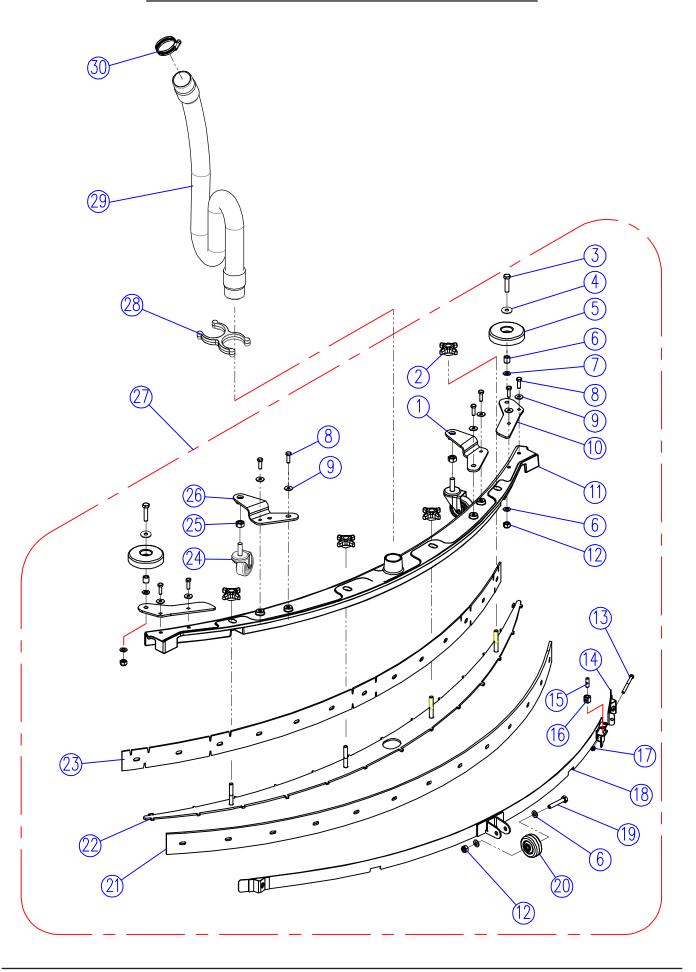
SCRUB HEAD LIFT GROUP



SCRUB HEAD LIFT GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|-----------------------------|--------------|
| 1 | 1123810 | | LOCK NUT,M8 | 6 |
| 2 | 1421824 | | FLAT WASHER,M8 X 24 X 2 | 10 |
| 3 | 8210306 | | BRACKET, GUIDE MNTG | 1 |
| 4 | 1021825 | | HEX BOLT,M8 X 25 | 2 |
| 5 | 1422821 | | LOCK WASHER,M8 | 4 |
| 6 | 1021820 | | HEX BOLT,M8 X 20 | 2 |
| 7 | 8210118 | | STATIC STRAP | 1 |
| 8 | 8210311 | | SPRING | 2 |
| 9 | 8210312 | | WASHER, PM | 2 |
| 10 | 8210314 | | SHAFT | 1 |
| 11 | 8210310 | | GUIDE, ROLLER | 1 |
| 12 | 8210313 | | ROLLER | 1 |
| 13 | 1022800 | | HEX BOLT,M8 X 100 | 1 |
| 14 | 8210316 | | BRACKET, SCRUB LIFT | 1 |
| 15 | 1123008 | | LOCK NUT,3/8 | 2 |
| 16 | 1022811 | | HEX BOLT,M8 X 110 | 1 |
| 17 | 8210319 | | SPRING | 2 |
| 18 | 8210317 | | BRACKET, SPRING | 1 |
| 19 | 1421132 | | FLAT WASHER,M 12 X 32 X 1.5 | 4 |
| 20 | 8210322 | | PIN | 1 |
| 21 | 8210309 | | PIN, COTTER | 2 |
| 22 | 8210318 | | SPRING | 2 |
| 23 | 8230311 | | SLEEVE | 2 |
| 24 | 8210321 | | BOLT, SHOULDER, 3/8 | 2 |
| 25 | 8230302 | | ACTUATOR, 36VDC | 1 |
| 26 | 8210301 | | PIN | 1 |
| 27 | 8210303 | | BRACKET, ACTUATOR MNTG | 1 |
| 28 | 1421612 | | FLAT WASHER,M6 X 12 X 1.6 | 4 |
| 29 | 1422616 | | LOCK WASHER,M6 | 4 |
| 30 | 1021616 | | HEX BOLT,M6 X 16 | 4 |

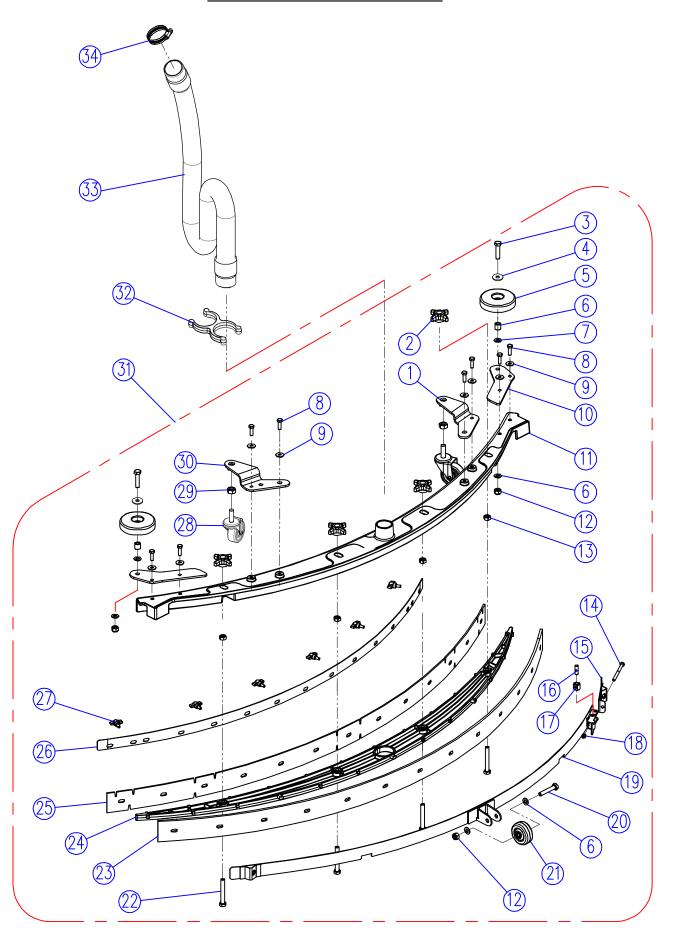
SQUEEGEE GROUP (46.5 INCH STANDARD)



SQUEEGEE GROUP (46.5 INCH STANDARD)

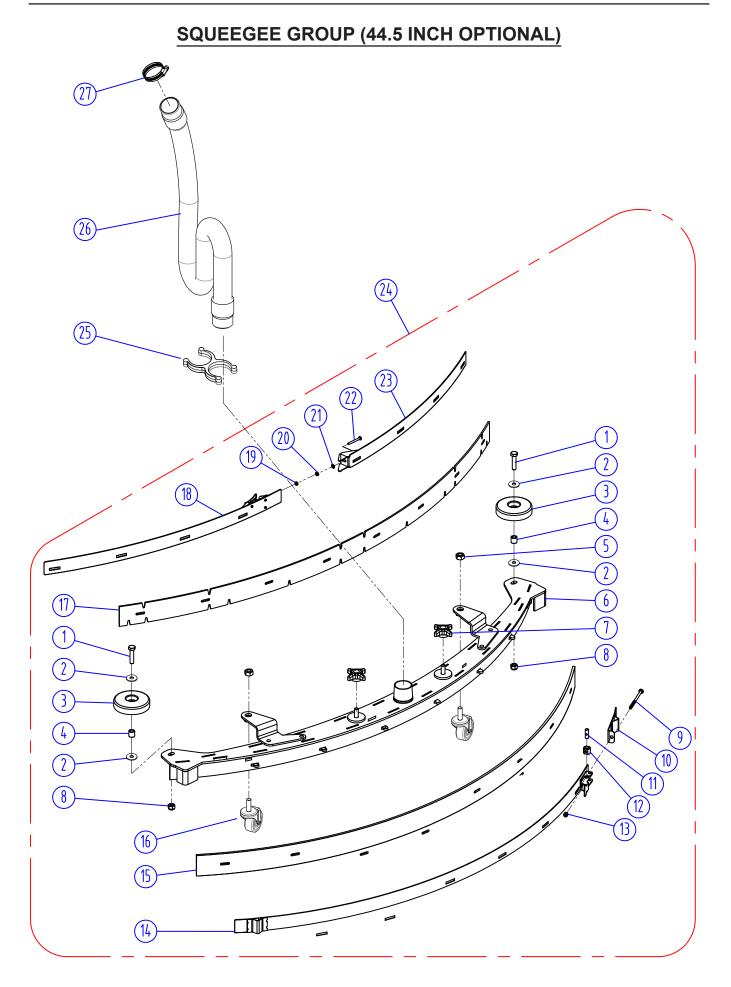
| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|--------------------------------------|--------------|
| 1 | 8118300 | | RIGHT BRACKET | 1 |
| 2 | 8210518 | | STAR KNOB,M8 | 4 |
| 3 | 1021835 | | HEX BOLT,M8 X 35 | 2 |
| 4 | 1421824 | | FLAT WASHER,M8 X 24 X 2.0 | 2 |
| 5 | 8116009 | | PROTECTIVE WHEEL | 2 |
| 6 | 8115404 | | BEARING, JOURNAL | 2 |
| 7 | 1421816 | | FLAT WASHER,M8 X 16 X1 .6 | 6 |
| 8 | 1021616 | | HEX BOLT,M6 X 16 | 8 |
| 9 | 1421618 | | FLAT WASHER,M6 X 18 X 1.6 | 8 |
| 10 | 8210515 | | BRACKET, ROLLER MNTG | 2 |
| 11 | 8230501 | | SQUEEGEE HOUSING | 1 |
| 12 | 1123810 | | LOCK NUT,M8 | 2 |
| 13 | 1221575 | | SCREW,M5 X 75 | 1 |
| 14 | 8210525 | | SHORT CLAMP ASSEBLY | 1 |
| 15 | 8118624 | | SHAFT | 1 |
| 16 | 8118623 | | SPACER | 1 |
| 17 | 1123507 | | LOCK NUT,M5 | 1 |
| 4.0 | 8210520 | | CLAMP ASSEMBLY, SQUEEGEE | 1 |
| 18 | 8211520 | | CLAMP ASSEMBLY, WITHOUT WHEEL(OP) | 1 |
| 19 | 1022845 | | HEX BOLT,M8 X 45 | 1 |
| 20 | 8210527 | | WHEEL, 2 INCH | 1 |
| 0.4 | 8230504 | | SQUEEGEE BLADE, REAR, LINATEX | 1 |
| 21 | 8230507 | | SQUEEGEE BLADE, REAR, PU (OPTIONAL) | 1 |
| 22 | 8230502 | | RETAINER, SQUEEGEE | 1 |
| 00 | 8230503 | | SQUEEGEE BLADE, FRONT, LINATEX | 1 |
| 23 | 8230506 | | SQUEEGEE BLADE, FRONT, PU (OPTIONAL) | 1 |
| 24 | 8118400 | | CASTER, 2 INCH | 2 |
| 25 | 1121008 | | HEX NUT,M10 | 2 |
| 26 | 8118200 | | LEFT BRACKET | 1 |
| 27 | 8230500 | | SQUEEGEE ASSEMBLY | 1 |
| 28 | 8118109 | | HOLDER VACUUM HOSE | 1 |
| 29 | 8118018 | | VACUUM HOSE | 1 |
| 30 | 1962050 | | CLAMP | 1 |

SQUEEGEE GROUP (OLD)



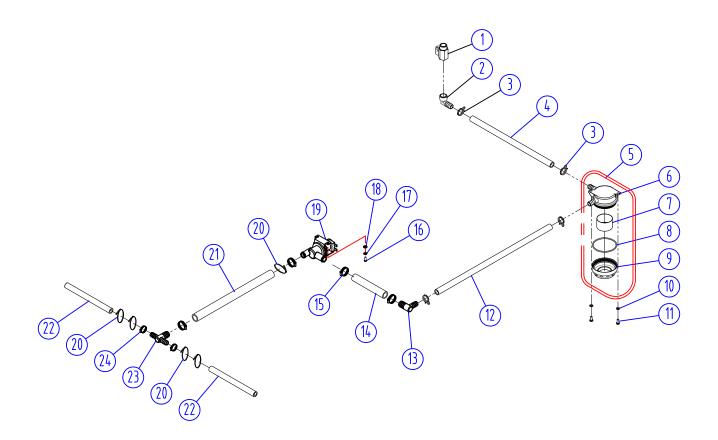
SQUEEGEE GROUP (OLD)

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|--------------------------------------|--------------|
| 1 | 8118300 | | RIGHT BRACKET | 1 |
| 2 | 8210518 | | STAR KNOB,M8 | 4 |
| 3 | 1021835 | | HEX BOLT,M8 X 35 | 2 |
| 4 | 1421824 | | FLAT WASHER,M8 X 24 X 2.0 | 2 |
| 5 | 8116009 | | PROTECTIVE WHEEL | 2 |
| 6 | 8115404 | | BEARING, JOURNAL | 2 |
| 7 | 1421816 | | FLAT WASHER,M8 X 16 X1 .6 | 6 |
| 8 | 1021616 | | HEX BOLT,M6 X 16 | 8 |
| 9 | 1421618 | | FLAT WASHER,M6 X 18 X 1.6 | 8 |
| 10 | 8210515 | | BRACKET, ROLLER MNTG | 2 |
| 11 | 8210511 | | SQUEEGEE HOUSING | 1 |
| 12 | 1123810 | | LOCK NUT,M8 | 2 |
| 13 | 1121807 | | HEX NUT,M8 | 4 |
| 14 | 1221575 | | SCREW,M5 X 75 | 1 |
| 15 | 8210525 | | SHORT CLAMP ASSEBLY | 1 |
| 16 | 8118624 | | SHAFT | 1 |
| 17 | 8118623 | | SPACER | 1 |
| 18 | 1123507 | | LOCK NUT,M5 | 1 |
| 40 | 8210520 | | CLAMP ASSEMBLY, SQUEEGEE | 1 |
| 19 | 8211520 | | CLAMP ASSEMBLY, WITHOUT WHEEL(OP) | 1 |
| 20 | 1022845 | | HEX BOLT,M8 X 45 | 1 |
| 21 | 8210527 | | WHEEL, 2 INCH | 1 |
| 22 | 1021860 | | HEX BOLT,M8 X 60 | 4 |
| 00 | 8210514 | | SQUEEGEE BLADE, REAR, LINATEX | 1 |
| 23 | 8210517 | | SQUEEGEE BLADE, REAR, PU (OPTIONAL) | 1 |
| 24 | 8210512 | | RETAINER, SQUEEGEE | 1 |
| 25 | 8210513 | | SQUEEGEE BLADE, FRONT, LINATEX | 1 |
| 25 | 8210516 | | SQUEEGEE BLADE, FRONT, PU (OPTIONAL) | 1 |
| 26 | 8210519 | | CLAMP, FRONT BLADE | 1 |
| 27 | 8210530 | | KNOB, M6 | 6 |
| 28 | 8118400 | | CASTER, 2 INCH | 2 |
| 29 | 1121008 | | HEX NUT,M10 | 2 |
| 30 | 8118200 | | LEFT BRACKET | 1 |
| 31 | 8210510 | | SQUEEGEE ASSEMBLY | 1 |
| 32 | 8118109 | | HOLDER VACUUM HOSE | 1 |
| 33 | 8118015 | | VACUUM HOSE | 1 |
| 34 | 1962050 | | CLAMP | 1 |



| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|--------------------------------------|--------------|
| 1 | 1021835 | | HEX BOLT,M8 X 35 | 2 |
| 2 | 1421824 | | FLAT WASHER,M8 X 24 X 2.0 | 2 |
| 3 | 8116009 | | PROTECTIVE WHEEL | 2 |
| 4 | 8115404 | | BEARING, JOURNAL | 2 |
| 5 | 1121008 | | HEX NUT,M10 | 2 |
| 6 | 8220501 | | SQUEEGEE HOUSING | 1 |
| 7 | 8210518 | | STAR KNOB,M8 | 2 |
| 8 | 1123810 | | LOCK NUT,M8 | 2 |
| 9 | 1221575 | | SCREW,M5 X 75 | 1 |
| 10 | 8210525 | | SHORT CLAMP ASSEBLY | 1 |
| 11 | 8118624 | | SHAFT | 1 |
| 12 | 8118623 | | SPACER | 1 |
| 13 | 1123507 | | HEX NUT,M5 | 1 |
| 14 | 8220521 | | CLAMP ASSEMBLY, SQUEEGEE | 1 |
| 15 | 8220513 | | SQUEEGEE BLADE, REAR, LINATEX | 1 |
| 15 | 8220523 | | SQUEEGEE BLADE, REAR, PU (OPTIONAL) | 1 |
| 16 | 8118400 | | WHEEL, 2 INCH | 2 |
| 17 | 8220514 | | SQUEEGEE BLADE, FRONT, LINATEX | 1 |
| 17 | 8220524 | | SQUEEGEE BLADE, FRONT, PU (OPTIONAL) | 1 |
| 18 | 8220518 | | FRONT CLAMP,LEFT | 1 |
| 19 | 1121403 | | HEX NUT,M4 | 1 |
| 20 | 1123406 | | LOCK NUT,M4 | 1 |
| 21 | 1421409 | | FLAT WASHER,M4 X 9 X 0.5 | 1 |
| 22 | 1211435 | | SCREW,M4 X 35 | 1 |
| 23 | 8220515 | | FRONT CLAMP, RIGHT | 1 |
| 24 | 8220500 | | SQUEEGEE ASSEMBLY | 1 |
| 25 | 8118109 | | HOLDER VACUUM HOSE | 1 |
| 26 | 8118006 | | VACUUM HOSE | 1 |
| 27 | 1962050 | | CLAMP | 1 |

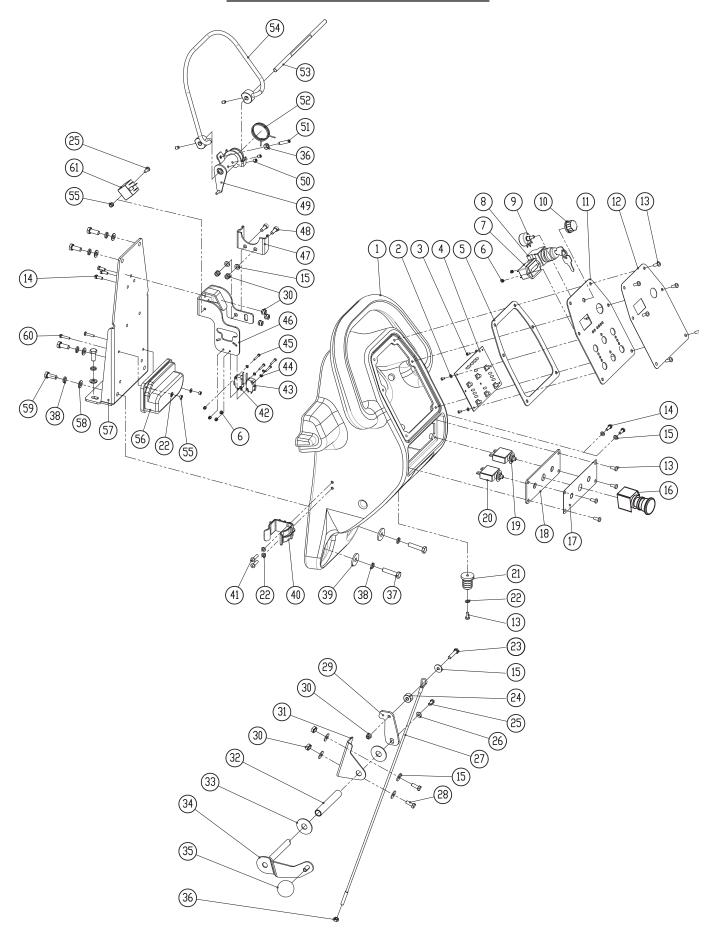
SOLUTION GROUP



SOLUTION GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|------------------------------------|--------------|
| 1 | 8119005 | | BALL VALVE, G1/2 | 1 |
| 2 | 8119007 | | ELBOW,G1/2 | 1 |
| 3 | 8119006 | | CLAMP | 4 |
| 4 | 8230304 | | TUB NG, 0=12 X 365MM | 1 |
| 5 | 8119100 | | F LTER ASSEBLY | 1 |
| 6 | 8119101 | | BASE, F LTER ASSEMBLY | 1 |
| 7 | 8119103 | | SCREEN, F LTER, 70 MESH | 1 |
| 7 | 8119105 | | SCREEN, F LTER, 40 MESH (OPT ONAL) | 1 |
| 8 | 1622063 | | "O" R NG | 1 |
| 9 | 8119102 | | CAP, F LTER ASSEMBLY | 1 |
| 10 | 1421510 | | FLAT WASHER,M5 X 10 X 1 | 2 |
| 11 | 1221512 | | SCREW ,M5 X 12 | 2 |
| 12 | 8230305 | | TUB NG, 0=12 X 560MM | 1 |
| 13 | 8230309 | | ELBOW, TUB NG BARB | 1 |
| 14 | 8230306 | | TUB NG, 0=16 X 120MM | 1 |
| 15 | 1962025 | | CLAMP, 16-25mm | 4 |
| 16 | 1221512 | | SCREW ,M5 X 12 | 2 |
| 17 | 1422513 | | LOCK WASHER,M5 | 2 |
| 18 | 1421512 | | FLAT WASHER,M5 X 10 X 1 | 2 |
| 19 | 8230122 | | SOLENO 0 VALVE,36V0C | 1 |
| 20 | 1914300 | | T E, NYLON, 5X300 | 5 |
| 21 | 8230307 | | TUB NG, 0=16 X 300MM | 1 |
| 22 | 8310903 | | TUB NG, 0=12 X 175MM | 2 |
| 23 | 8230308 | | F TT NG, PLAST C, TEE | 1 |
| 24 | 1962016 | | CLAMP, 10-16mm | 2 |

CONTROL CONSOLE GROUP



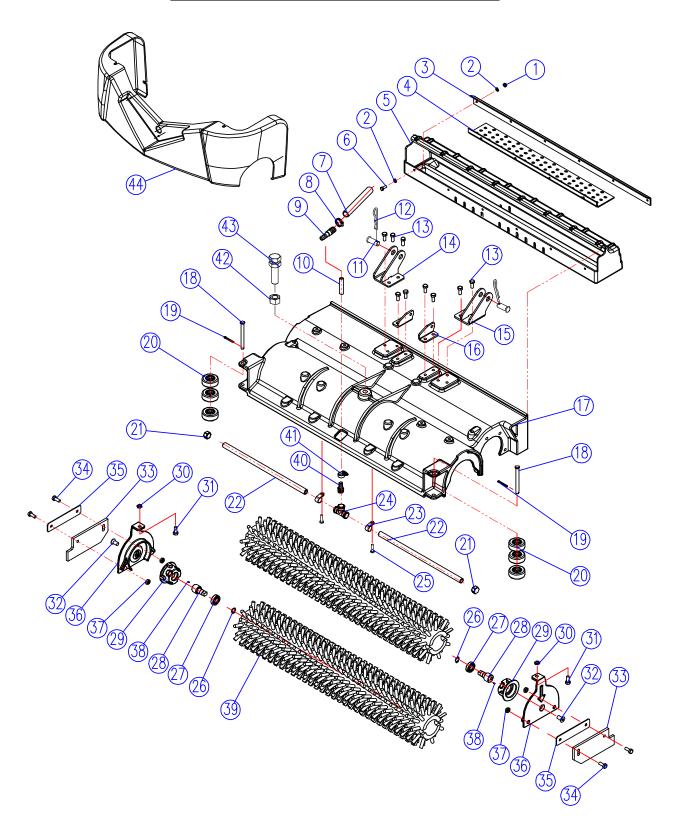
CONTROL CONSOLE GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|----------------------------|--------------|
| 1 | 8134001 | | CONTROL CONSOLE HOUSING | 1 |
| 2 | 1421307 | | FLAT WASHER M3×7×0.5 | 5 |
| 3 | 1221306 | | SCREW M3×6 | 5 |
| 4 | 8230709-US | | PCB ASSEMBLY | 1 |
| 5 | 8134015 | | GASKET | 1 |
| 6 | 1123305 | | LOCK NUT M3 | 6 |
| 7 | 8114710 | | TIMER | 1 |
| | 8114709 | | KEY SWITCH | 1 |
| 8 | 8114752 | | KEY | 1 |
| 9 | 8124717A | | POTENTIOMETER, KIT | 1 |
| 10 | 8124718 | | KNOB, POTENTIOMETER | 1 |
| 11 | 8210410 | | CONTROL PANEL | 1 |
| 12 | 8210416 | | CONTROL PANEL DECAL, i36BT | 1 |
| 13 | 1221512 | | SCREW M5×12 | 12 |
| 14 | 1021616 | | HEX BOLT M6 X 16 | 5 |
| 15 | 1421618 | | PLAIN WASHER 6×18×1.6,SS | 9 |
| 16 | 8310707 | | EMERGENCY STOP BUTTON | 1 |
| 17 | 8144029 | | DECAL, EMERGENCY STOP | 1 |
| 18 | 8134008 | | PLATE, EMERGENCY STOP MNTG | 1 |
| 19 | 8114703 | | CIRCUIT BREAKER, 35A | 1 |
| 20 | 8310740 | | CIRCUIT BREAKER, 5A | 1 |
| 21 | 8114005 | | CONNECTOR | 1 |
| 22 | 1421510 | | FLAT WASHER M5×10×1.0 | 5 |
| 23 | 1021630 | | HEX HEAD BOLT M6×30,SS | 1 |
| 24 | 8014101 | | LIFTING ROPE SPACER | 1 |
| 25 | 1021512 | | HEX HEAD BOLT M5×12,SS | 2 |
| 26 | 1421515 | | FLAT WASHER M5×15×1.0 | 1 |
| 27 | 8210413 | | CABLE, SQGE LIFT | 1 |
| 28 | 1021620 | | HEX HEAD BOLT, M6 ×20 | 2 |
| 29 | 8014012 | | BAFFLE | 1 |
| 30 | 1123608 | | LOCK NUT M6 | 8 |
| 31 | 8134501 | | BRACKET | 1 |
| 32 | 8134508 | | SLEEVE | 1 |
| 33 | 1421132 | | FLAT WASHER 12×32×1.5 | 2 |
| 34 | 8014010 | | SQUEEGEE LIFTING HANDLE | 1 |

CONTROL CONSOLE GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|-----------------------------|--------------|
| 35 | 8113104 | | BALL KNOB M8 | 1 |
| 36 | 1121605 | | HEX NUT M6 | 2 |
| 37 | 1021840 | | HEX BOLT M8×40 | 2 |
| 38 | 1422821 | | LOCK WASHER M8 | 8 |
| 39 | 1421828 | | FLAT WASHER M8×28×3 | 2 |
| 40 | 6210111 | | CLAMP, DRAIN HOSE | 1 |
| 41 | 1221515 | | PH SCREW M5×15,SS | 2 |
| 42 | 8124743 | | MICRO SWITCH | 1 |
| 43 | 8114712 | | MICRO SWITCH | 1 |
| 44 | 1434300 | | LOCK WASHER, TOOTH, M3 | 4 |
| 45 | 1021320 | | SCREW M3×20 | 4 |
| 46 | 8134022 | | BRACKET,SWITCH | 1 |
| 47 | 8114402 | | BRACKET, SPRING | 1 |
| 48 | 1521616 | | SCREW M6X16, HEX SCOKET | 2 |
| 49 | 8114300 | | ACTUATOR | 1 |
| 50 | 1534608 | | SET SCREW M6 ×8 | 4 |
| 51 | 1535630 | | SET SCREW M6 ×30 | 1 |
| 52 | 8114306 | | SPRING | 1 |
| 53 | 8114101 | | SHAFT | 1 |
| 54 | 8134300 | | LEVER, BAIL | 1 |
| 55 | 1123507 | | LOCK NUT M5 | 3 |
| 56 | 8124501B | | SPEED CONTROL BOARD | 1 |
| 57 | 8134021 | | REAR PLATE, CONTROL CONSOLE | 1 |
| 58 | 1421824 | | FLAT WASHER M8×24×2 | 6 |
| 59 | 1021820 | | HEX BOLT M8×20 | 6 |
| 60 | 1021535 | | SCREW, M5 × 35 | 2 |
| 61 | 8114707 | | RELAY, 40A | 1 |

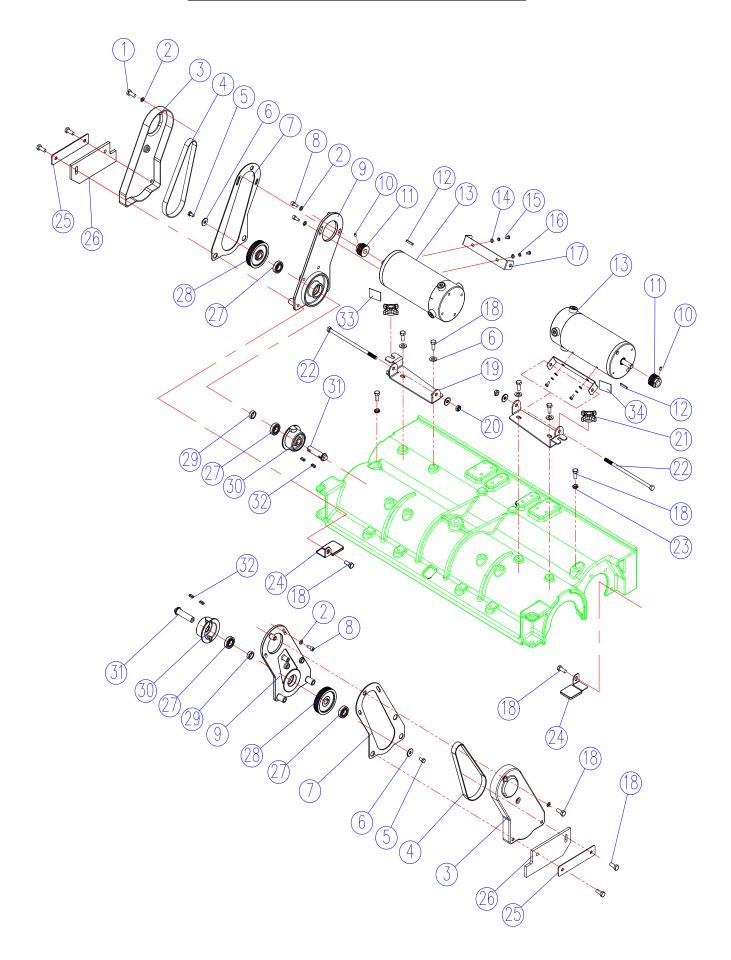
CYLINDRICAL SCRUB HEAD GROUP



CYLINDRICAL SCRUB HEAD GROUP

| DIA NO. | PART NUMBER | SERIA | LNUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------|--------------|--------------------------------------|--------------|
| 1 | 1123608 | | | LOCK NUT,M6 | 6 |
| 2 | 1421612 | | | FLAT WASHER,M6 X 12 X 1.6 | 12 |
| 3 | 8236019 | | | LIP, HOPPER | 1 |
| 4 | 8236020 | | | STRIP, HOPPER | 1 |
| 5 | 8236004 | | | HOPPER | 1 |
| 6 | 1021616 | | | HEX BOLT,M6 X 16 | 6 |
| 7 | 8236038 | | | TUBING,ID=16 X 450MM | 1 |
| 8 | 1962025 | | | CLAMP ,16-25MM | 1 |
| 9 | 8701034 | | | ELBOW, TUBING BARB | 1 |
| 10 | 8236030 | | | TUBING,ID=12 X 70MM | 1 |
| 11 | 8230138 | - | for i36BT-CY | PIN | 2 |
| 11 | 8210807 | -100161 | for i36BT-CY | PIN(OLD) | 2 |
| 12 | 8210309 | | | PIN, COTTER | 2 |
| 13 | 1021820 | | | SCREW, M8 X 20 | 10 |
| 4.4 | 8230850 | - | for i36BT-CY | BRACKET, SCRUB HEAD LIFT, LEFT | 1 |
| 14 | 8236032 | -100161 | for i36BT-CY | BRACKET, SCRUB HEAD LIFT, LEFT(OLD) | 1 |
| 45 | 8230840 | - | for i36BT-CY | BRACKET, SCRUB HEAD LIFT, RIGHT | 1 |
| 15 | 8236031 | -100161 | for i36BT-CY | BRACKET, SCRUB HEAD LIFT, RIGHT(OLD) | 1 |
| 16 | 8236033 | | | BRACKET, ACTUATOR MOUNTING | 2 |
| 17 | 8236001 | | | HOUSING CYLINDRICAL | 1 |
| 18 | 8236011 | | | PIN,M9.5X96 | 2 |
| 19 | 1645324 | | | PIN, COTTER, M3.2 X 24 | 2 |
| 20 | 8236026 | | | WHEEL,2" | 6 |
| 21 | 8146303 | | | END CAP,3/8" | 2 |
| 22 | 8236035 | | | PVC TUBING | 2 |
| 23 | 8146305 | | | PLASTIC CLAMP | 4 |
| 24 | 8146301 | | | TEE FITTING,3/8" | 1 |
| 25 | 1221512 | | | SCREW, M5 X 12 | 4 |
| 26 | 1436015 | | | RING RETAINING, M15 | 2 |
| 27 | 1612602 | | | BEARING, 6002LLU | 2 |
| 28 | 8236009 | | | SHAFT, IDLER | 2 |
| 29 | 8236008 | | | PLUG,IDLER,BRUSH | 2 |
| 30 | 1121804 | | | NUT,M8 | 2 |
| 31 | 1021840 | | | SCREW, M8 X 40 | 2 |
| 32 | 1513020 | | | COUNTERSUNK HEX SCREW,M10X20 | 2 |
| 33 | 8236013 | | | SKIRT,CYLINDRICAL | 2 |
| 34 | 1021816 | | | SCREW, M8 X 16 | 4 |
| 35 | 8236014 | | | CLAMP,SKIRT | 2 |
| 36 | 8236002 | 1 | | DOOR,BRUSH | 2 |
| 37 | 1123810 | 1 | | LOCK NUT,M8 | 4 |
| 38 | 1644206 | 1 | | PIN,M2.5X6 | 2 |
| 39 | 8236005 | 1 | | BRUSH,CYLINDRICAL | 2 |
| 40 | 8013007 | 1 | | TUBING FITTING | 1 |
| 41 | 1962016 | 1 | | CLAMP ,16MM | 2 |
| 42 | 1111215 | 1 | | HEX NUT, M16 | 1 |
| 43 | 8210811 | | | AJUSTMENT STUD, M16 | 1 |
| 44 | 8236003 | 1 | | FRONT COVER | 1 |

CYLINDRICAL SC RUB DRIVE GROUP

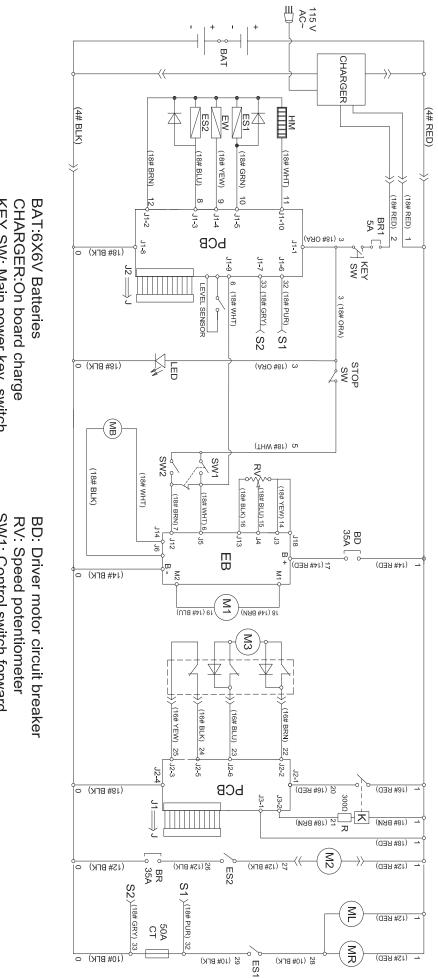


CYLINDRICAL SCRUB DRIVE GROUP

| DIA NO. | PART NUMBER | SERIAL NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|---------------|---------------------------|--------------|
| 1 | 1521612 | | HEX SOCKET SCREW,M6 X 12 | 4 |
| 2 | 1421612 | | FLAT WASHER,M6 X 12 X 1.6 | 8 |
| 3 | 8236018 | | COVER,BELT | 2 |
| 4 | 8236027 | | BELT,DRIVE,6PJ 508MM | 2 |
| 5 | 1021816 | | HEX BOLT,M8 X 16 | 2 |
| 6 | 1421824 | | FLAT WASHER,M8 X 24 X 2 | 8 |
| 7 | 8236029 | | GASKET,BELT | 2 |
| 8 | 1521616 | | HEX SOCKET SCREW,M6 X 16 | 4 |
| 9 | 8236017 | | BRACKET, MOTOR MOUNTING | 2 |
| 10 | 1534508 | | SCREW,M5 X 8 | 4 |
| 11 | 8236012 | | DRIVING PULLEY,6PJ | 2 |
| 12 | 8236023 | | KEY,4 X 4 X 25 | 2 |
| 13 | 8236028A | | KIT,MOTOR,36VDC,0.75HP | 2 |
| 14 | 1421511 | | FLAT WASHER,M5 X 12 X 1 | 4 |
| 15 | 1021512 | | HEX BOLT,M5 X 12 | 4 |
| 16 | 1422513 | | WASHER,LOCK,M5 X 12 X 1 | 4 |
| 17 | 8236015 | | ANGLE BRACKET, MOTOR | 2 |
| 18 | 1021820 | | HEX BOLT,M8 X 20 | 18 |
| 19 | 8236016 | | BRACKET, MOTOR | 2 |
| 20 | 1123810 | | LOCK NUT,M8 | 2 |
| 21 | 8118003 | | STAR KNOB,M8 | 2 |
| 22 | 8236034 | | HEX BOLT,M8 X 185 | 2 |
| 23 | 1121804 | | NUT,M8 | 2 |
| 24 | 8236021 | | DEFLECTOR,WATER | 2 |
| 25 | 8236014 | | CLAMP,SKIRT | 4 |
| 26 | 8236013 | | SKIRT,CYLINDRICAL | 4 |
| 27 | 1612602 | | BEARING, 6002LLU | 4 |
| 28 | 8236007 | | DRIVEN PULLEY,6PJ | 2 |
| 29 | 8236024 | | BUSHING | 2 |
| 30 | 8236025 | | PLUG, DRIVE,BRUSH | 2 |
| 31 | 8236010 | | SHAFT | 2 |
| 32 | 1655015 | | KEY,5 X 5 X 15 | 4 |
| 33 | 8230014 | | BRUSH MOTOR LABEL 01 | 1 |
| 34 | 8230015 | | BRUSH MOTOR LABEL 02 | 1 |

| DIA NO. | PART NUMBER | DESCRIPTION | NO. REQ'D |
|------------|----------------|--------------------------------|--------------|
| 1 | 8230116 | WHEEL, 12 INCH | 2 |
| 2 | 8116009 | PROTECTIVE WHEEL | 3 |
| 3 | 8230119 | CASTER, 5 INCH | 2 |
| 4 | 8210513 | SQUEEGEE BLADE, FRONT, LINATEX | 1 |
| 5 | 8210514 | SQUEEGEE BLADE, REAR, LINATEX | 1 |
| 6 | 9050016 | 16" BRUSH | 2 |
| 7 | 9040016 | 16" PAD HOLDER | 2 |
| 8 | 8236005 | CYLINDRICAL BRUSH | 2 |
| 9 | 8236013 | CYLINDRICAL SKIRT | 4 |

WEAR & TEAR PARTS LIST



BAT:6X6V Batteries CHARGER:On board charge KEY SW: Main power key switch HM:Hour meter ES1:Brush motor solenoid switch EW:Solution solenoid valve switch ES2:Vacuum motor solenoid switch PCB:Fuction electronic board STOP SW:Emergency stop switch MB:Electromagnetic brake LED:Running lights MR:Brush motor,right

BD: Driver motor circuit breaker RV: Speed potentiometer SW1: Control switch,forward SW2: Control switch,backward EB:Speed control board M1:Traction motor K:Key M3:Scrub hend lifting motor BR:Vacuum motor circuit breaker M2:Vacuum motor M2:Vacuum motor, left CT:Current transformer BR1: Brake circuit breaker WIRING DIRGRAM

CERTIFICATE OF QUALIFIED

MODEL:_____ SERIAL NO.:_____

INSPECTOR: DATE:

ICE Cobotics (GuangDong)Company Limited

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