Read these Instructions before using the machine.

Read these Safety Messages before using the machine.
INTRODUCTION

This manual is furnished with each new machine. This manual will allow the Operator to get the best performance out of your RPS manufactured Scrubber-Drier, Sweeper, Burnisher, or Orbital Scrubber. Read this manual thoroughly before operating or servicing the machine.

This machine will provide excellent performance, but the best results will be obtained at the most minimum costs if:

• The machine is regularly maintained - per the Authorized Local Distributor.
• The machine is operated with reasonable care and caution.
• The machine is maintained with manufacturer supplied parts.

LOCATE SERIAL NUMBER

The serial number of your machine is located on the lower half of the steering column of the machine.
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You will see four kinds of safety reminders in this manual:

<table>
<thead>
<tr>
<th>DANGER</th>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.</td>
<td>WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAUTION</th>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury or damage to this machine or nearby objects. CAUTION also can be used to alert against unsafe practices.</td>
<td>NOTICE indicates information considered important, but not hazard-related. This safety message may be related to property damage or warranty warnings.</td>
</tr>
</tbody>
</table>

Your safety, and that of others, is very important. Operating this machine safely is an important responsibility.

**DO NOT OPERATE THIS MACHINE:**
- Unless you are trained and authorized to do so by your RPS Authorized Local Distributor
- Unless you have read and understood this Operator's Manual
- On surfaces with greater than an 2% / 3.49° grade
- On Loading Docks

**WHEN OPERATING THIS MACHINE:**
- Remove loose objects from the floor that could be projected from the rotating Brushes
- Keep your hands and feet away from the rotating Brushes
- Do not operate this machine where flammable liquids, vapors, or dust are present
- Use caution when maneuvering
- Wear PPE

**BEFORE LEAVING THE MACHINE:**
- Drain “clean” Solution & “dirty” Recovery solution into APPROVED drains
- Park the machine on a level surface
- Turn the machine off & remove key

**BEFORE SERVICING THE MACHINE:**
- Disconnect the Batteries
- Wear PPE

**DANGER**
Explosive hydrogen gas forms when Batteries are charging. An open flame or spark can cause this gas to explode. Serious personal injury or property damage could occur. Only charge the Batteries in this machine in a well ventilated area.

**DANGER**
Flammable materials can cause an explosion or fire. Do not use flammable materials in Tank or pick up.
**WARNING**
The Batteries in this machine produce hazardous voltage which can cause electrical shock, burns and/or electrocution. Always disconnect Batteries before servicing this machine.

**WARNING**
When climbing or descending ramps, always drive machine forward. To avoid overturning the machine, Do not back down ramps. Do not drive across inclines. Do not turn while ascending or descending ramps. Overturning the machine can cause serious injury or death.

**WARNING**
Do not use water that exceeds 130°F / 54°C. If water is above said temperature, this will void the Tank Warranty.

**WARNING**
Do not park this machine on ramps or slopes. Always park this machine on a level, hard surface. Do not operate this machine outdoors or on uneven surfaces.

**WARNING**
The Batteries in this machine contain sulfuric acid, which causes burns to skin. If battery acid contacts clothing or skin, rinse the effected area with cold water immediately. If battery acid gets on your face or in your eyes, flush the area immediately with cold water and seek medical attention.

**WARNING**
To avoid electrical shock, do not operate this machine over electrical floor outlets.

**CAUTION**
To avoid damage to this machine, use only cleaning solutions and replacement parts recommended by the manufacturer.

**CAUTION**
Do not operate this machine if any parts have been damaged or removed.

**WARNING**
Dress safely. Do not wear rings or metal wrist watches when servicing this machine, as they can cause an electrical short circuit which can cause serious burns.

**WARNING**
Do not remove, paint over or destroy warning decals. If warning decals become damaged, call 1-262-681-3583 for free replacements.

**WARNING**
Dress safely. Do not wear a neck tie, scarf, or any loose or dangling clothing while operating this machine. Loose or dangling clothing or neck-wear can tangle in rotating parts, causing serious injury or death.

**WARNING**
Always turn off this machine before leaving it unattended. Do not allow untrained persons to operate this machine.

**WARNING**
NO RIDERS. Do not carry passengers on this machine. Do not use this machine as a stepladder or work platform.

**WARNING**
Understand the dynamic braking system before you operate the machine on ramps. Machine may coast.

**WARNING**
Before you service a Battery, always wear face protection, protective gloves and protective clothing. Battery acid or battery explosion can cause serious injuries.

**CAUTION**
Always use the automatic battery charger provided by the manufacturer of this machine to charge the Batteries of this machine. It is designed to charge the Batteries at the appropriate rate. If you must use a different charger, disconnect the Batteries before charging to avoid damage to the electronic speed controller.

**CAUTION**
To avoid damage to the electronic control components of this machine, Do not store this machine outdoors. Do not pressure wash this machine.
Read and obey all Safety Labels on your equipment. If you have questions about these labels, ask your supervisor. These images indicate where on the Safety Labels are located. If ever the labels become illegible, worn off, or torn, promptly report it to your supervisor and replace it.
** USE GREEN MENU SELECTION BUTTON ON CONTROL PANEL TO CHANGE SCREENS **

1. **BATTERY LEVEL INDICATOR** - Indicates the energy level remaining in the Batteries *(Shown on all menu displays)*
2. **SOLUTION OUTPUT INDICATOR** - Indicates the gallons per minute *(GPM)* 0 - 1.0
3. **SCRUBDECK DOWN PRESSURE INDICATOR** - Sets the down pressure on the Brushes / Pads
4. **SCRUB MOTORS ON** - Indicates the Brush Motors are in operation
5. **SOLUTION ON** - Indicates the solution flow is *ON*
6. **VACUUM ON** - Indicates the Vacuum is *ON*
7. **KEY SWITCH HOUR METER** - Indicates total hours the machine has had keyswitch *ON*
8. **TRANSPORT HOUR METER** - Indicates total hours the drive system has been in operation
9. **SCRUB BRUSH HOUR METER** - Indicates total hours the brush motors have been in operation
10. **VACUUM HOUR METER** - Indicates total hours the vacuum motor has been used
11. **DIAGNOSTIC CODE** - Displays diagnostic code which helps troubleshoot issues
12. **ERROR WARNING SYMBOL** - Indicates when there has been a diagnostic code error
1. OPERATION CONTROLS

- EMERGENCY STOP

1.

2.

3.
## OPERATION CONTROLS

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
</table>
### OPERATION CONTROLS

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

- **11.**
- **12.**
- **13.**
- **14.**
- **15.**
- **16.**

**Legend:**
- **SUDS**
- **ZERO**
- **Lock**
- **Unlock**
- **Volume**
- **Time**
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19. SOLUTION FILTER:</td>
<td>20. VAC BOX UNLOADER:</td>
<td>21. VACUUM DISCHARGE:</td>
</tr>
<tr>
<td>Standard Solution Feed Filter for scrubdeck.</td>
<td>Unloader valve for the Yellow Vac Box. Water present in the Yellow Vac Box will drain when vacuum is off.</td>
<td>Water passed through the Vacuum Motor will be visible in the reservoir and excess will flow from the blue hose. Indicates service required.</td>
</tr>
<tr>
<td>22. SUDS DRAIN:</td>
<td>23. ZERO3 FILTER:</td>
<td>24. BATTERY DRAIN:</td>
</tr>
<tr>
<td>Drain detergent from Suds reservoir.</td>
<td>Optional ZerO3 (O3+) Ozone System Solution Filter.</td>
<td>Drain any fluid from Poly Battery Box.</td>
</tr>
</tbody>
</table>
SPRAY JET CONTROLS (OPTIONAL)
SUDS CONTROLS (OPTIONAL)

- **250:1 (~0.5oz / gal [~4ml / 1L]) - “Single Dose”**
- **125:1 (~1oz / gal [~8ml / 1L]) - “Double Dose”**

- **O - OFF**
Turn regular solution OFF, when using ZerO3 Aqueous Ozone.
CONTROLLING MANAGER LOCK OUTS:
When the key is in the LOCKED position, keys can be removed and Solution OR Down-pressure cannot be adjusted.
HEADLIGHTS & WORK-LIGHTS (OPTIONAL)

HEADLIGHTS ON

OFF

HEADLIGHTS & REAR WORK-LIGHTS ON
SIDE BROOM SYSTEM (OPTIONAL)

ON

OFF

ON

OFF

ON

OFF

TC-EX-OP-EN

- 17 -
RPM MODE SWITCH (OPTIONAL)

![RPM Mode Switch Diagram]

- 100% RPM
- 80% RPM
WARNING
Before you service a Battery, always wear face protection, protective gloves and protective clothing. Battery acid or battery explosion can cause serious injuries.

WARNING
The Batteries in this machine contain sulfuric acid, which causes burns to skin. If battery acid contacts clothing or skin, rinse the effected area with cold water immediately. If battery acid gets on your face or in your eyes, flush the area immediately with cold water and seek medical attention.

NOTICE
Batteries are a possible environmental hazard. Consult your Battery supplier for safe disposal methods.
1. Remove the key from the ignition switch and turn it to the OFF position.

2. Use the key to remove the squeegee assembly.

3. Gently lift the squeegee assembly up and out of the vehicle.

4. Ensure all components are properly stored and secured.
ADJUST SQUEEGEE
Please refer to OEM Charger Operating Instructions for more information.
TRANSPORTATION - FORWARD

1. ON

2. 0 - 3.3mph (0 - 5.3 kph)

[Images of control settings and machine operation]
TRANSPORTATION - REVERSE

1. **ON**

2. 0 - 1.6mph (0 - 2.6 kph)

- ✔️
- ❌
FILL SOLUTION TANK

1. Fill the solution tank with water up to the mark.

2. **DANGER**
   - EXPLOSION RISK!
   - Flammable materials can cause an explosion or fire. Do not use flammable materials in the tank or pick up.
   - To avoid damage to this machine:
     - Use approved detergents only.
     - Water temperature must not exceed 130°F / 54°C.
     - Do not use high-percentage bleach mixture.
   
   Refer to manual or call +011-262-681-3583

3. Close the solution tank.

4. Replace the cleaning solution.
OPERATION - SCRUBBING

1. **ON**

2. Arrows indicating directions for control

3. Diagram of scrubbing process
NOTICE

Drain “clean” Solution & “dirty” Recovery solution into APPROVED drains
DRAINING SOLUTION TANK

NOTICE
Drain “clean” Solution & “dirty” Recovery solution into APPROVED drains
CLEAN DRAIN SAVER

1

2
CLEAN VAC BOX SYSTEM

1. 

2. 

3. 

4. 

5. 

6. 

- 32 -
1. Replace brush when fibers reach 1/4 inch in length.

2. Rotate after 25 hrs.
1. REMOVE CYLINDRICAL BRUSHES

2. Replace brush when fibers reach 1/4 inch in length

3. Rotate after 25 hrs

4. TC-EX-OP-EN
WARNING
Do not park this machine on ramps or slopes. Always park this machine on a level, hard surface. Do not operate this machine outdoors or on uneven surfaces.

WARNING
Understand the dynamic braking system before you operate the machine on ramps. Machine may coast.

1

2

[Images of control panel:]
Please refer to OEM Charger Operating Instructions for more information.

**DANGER**

Explosive hydrogen gas forms when Batteries are charging. An open flame or spark can cause this gas to explode. Serious personal injury or property damage could occur. Only charge the Batteries in this machine in a well ventilated area.
BATTERY CHARGERS

Console / WET / Domestic Chargers:

- AC Power IN: 120VAC / 60Hz
- DC Power OUT: 36VDC / 25A (ST) - 36A (HD)

Please refer to OEM Charger Operating Instructions for more information.

Onboard / AGM / International Chargers:

- AC Power: 80-270VAC / 50-60Hz
- DC Power OUT: 36VDC / 33A

Please refer to OEM Charger Operating Instructions for more information.
# COMMON WEAR PARTS

## ROUND DISK BRUSHES:

### NOTICE

The ## in Disk Column Denotes Desk Pad Size: 15” or 17”

<table>
<thead>
<tr>
<th>BRUSHES</th>
<th>DISK</th>
<th>LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Grit</td>
<td>#382SS</td>
<td>Very High</td>
</tr>
<tr>
<td>Tough Grit</td>
<td>#382S</td>
<td>High</td>
</tr>
<tr>
<td>Midi Grit</td>
<td>#382C</td>
<td>Medium</td>
</tr>
<tr>
<td>Light Grit</td>
<td>#382PS</td>
<td>Moderate</td>
</tr>
<tr>
<td>Poly</td>
<td>#382P</td>
<td>Light</td>
</tr>
<tr>
<td>Nylon</td>
<td>#382N</td>
<td>Light</td>
</tr>
<tr>
<td>Tampico</td>
<td>#382T</td>
<td>Light</td>
</tr>
<tr>
<td>Pad Driver</td>
<td>#382D</td>
<td></td>
</tr>
<tr>
<td>Diamond Driver</td>
<td>#382DD</td>
<td></td>
</tr>
</tbody>
</table>

## ROUND DISK PADS:

### NOTICE

The ## in Disk Column Denotes Desk Pad Size: 15” or 17”

<table>
<thead>
<tr>
<th>DISK PADS</th>
<th>DISK</th>
<th>LEVEL</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Black</td>
<td>#422BB</td>
<td>Very High</td>
<td>Black</td>
</tr>
<tr>
<td>Black</td>
<td>#422B</td>
<td>High</td>
<td>Black</td>
</tr>
<tr>
<td>Brown</td>
<td>#422BR</td>
<td>High</td>
<td>Brown</td>
</tr>
<tr>
<td>Green</td>
<td>#422G</td>
<td>Medium</td>
<td>Green</td>
</tr>
<tr>
<td>Blue</td>
<td>#422BL</td>
<td>Moderate</td>
<td>Blue</td>
</tr>
<tr>
<td>Red</td>
<td>#422R</td>
<td>Moderate</td>
<td>Red</td>
</tr>
<tr>
<td>White</td>
<td>#422W</td>
<td>Light</td>
<td>White</td>
</tr>
</tbody>
</table>

## CYLINDRICAL BRUSHES:

<table>
<thead>
<tr>
<th>BRUSHES</th>
<th>MODEL 29&quot; CYLINDRICAL</th>
<th>MODEL 33&quot; CYLINDRICAL</th>
<th>LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tough Grit</td>
<td>276-697S</td>
<td>316-697S</td>
<td>High</td>
</tr>
<tr>
<td>Midi Grit</td>
<td>276-697C</td>
<td>316-697C</td>
<td>Medium</td>
</tr>
<tr>
<td>Light Grit</td>
<td>276-697PS</td>
<td>316-697PS</td>
<td>Moderate</td>
</tr>
<tr>
<td>Fine Grit</td>
<td>276-697F</td>
<td>316-697F</td>
<td>Light</td>
</tr>
<tr>
<td>Nylon</td>
<td>276-697N</td>
<td>316-697N</td>
<td>Light</td>
</tr>
<tr>
<td>Tampico</td>
<td>276-697T</td>
<td>316-697T</td>
<td>Light</td>
</tr>
</tbody>
</table>
SQUEEGEE BLADE KITS & COMPLETE SQUEEGEE ASSEMBLIES:

<table>
<thead>
<tr>
<th>SQUEEGEE SIZE</th>
<th>30&quot; DISK DECKS</th>
<th>34&quot; DISK DECKS</th>
<th>29&quot; CYL. DECKS</th>
<th>33&quot; CYL. DECKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>33&quot; Squeegee</td>
<td>Standard</td>
<td>Optional</td>
<td>Standard</td>
<td>Optional</td>
</tr>
<tr>
<td>36&quot; Squeegee</td>
<td>Optional</td>
<td>Standard</td>
<td>Optional</td>
<td>Standard</td>
</tr>
<tr>
<td>39&quot; Squeegee</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

SQUEEGEE SIZE | LINATEX BLADE KIT | GUM RUBBER BLADE KIT | URETHANE BLADE KIT | COMPLETE SQUEEGEE ASSEMBLIES
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>33&quot; Squeegee</td>
<td>33-770L</td>
<td>33-770G</td>
<td>33-770U</td>
<td>33-7180</td>
</tr>
<tr>
<td>36&quot; Squeegee</td>
<td>36-770L</td>
<td>36-770G</td>
<td>36-770U</td>
<td>36-7180</td>
</tr>
</tbody>
</table>

SQUEEGEE MATERIAL: USED FOR:

| LINATEX        | Provides best wear and tear resistance. Not designed for use with harsh chemicals. |
| URETHANE       | Provides best resistance when dealing with harsh chemicals, oils, fuels, etc.        |
| GUM            | Provides best drying performance on rough/grouted floor types by sealing over irregularities. Short life. |

NOTICE
Squeegee blade kits include (1) Rear Blade & (1) Front Blade.

NOTICE
Squeegee Assemblies (complete) listed above all come with Linatex blades.

NOTICE
Size is stamped into the top of the painted steel squeegee body on all squeegee's.
<table>
<thead>
<tr>
<th>Diagnostic Code</th>
<th>Cause</th>
<th>Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1501</td>
<td>Parking brake is released or the parking brake coil circuit is open</td>
<td>Check to assure the parking brake is not manually released.</td>
</tr>
<tr>
<td>1507</td>
<td>Parking Brake Over Current</td>
<td>Parking brake coil is internally shorted or there is a problem with the wiring to the brake.</td>
</tr>
<tr>
<td>2C00-2C02</td>
<td>Battery voltage is low</td>
<td>Charge the batteries with OEM supplied charger.</td>
</tr>
<tr>
<td>2F01</td>
<td>Throttle is depressed during power on or a fault with the throttle system</td>
<td>Turn the machine off, assure that the throttle button(s) or throttle pedal are not depressed. Turn the machine back on and if the condition persists, seek technical support from your local authorized RPS distributor.</td>
</tr>
<tr>
<td>3101</td>
<td>Brush / Vac Motor - Precharge Fault</td>
<td>This code can be caused by the scrub or vacuum motor(s) having moisture present or contaminated with debris.</td>
</tr>
<tr>
<td>3102</td>
<td>Traction Motor - Precharge Fault</td>
<td>This code can be caused by the traction motor having moisture present or being contaminated.</td>
</tr>
<tr>
<td>7600</td>
<td>Brush Motor Circuit Open</td>
<td>The controller is not seeing continuity on the brush motor circuit. This can be caused by the wiring to the scrub brush motor(s), corroded connections or a faulty motor.</td>
</tr>
<tr>
<td>7601-7603</td>
<td>Brush Motor Circuit Over Current</td>
<td>The brush motor output is exceeding its limit. With the scrubber turned off, check for entrapped debris around the brush driver(s) and assure the brushes turn freely.</td>
</tr>
<tr>
<td>7700</td>
<td>Vacuum Motor Circuit Open</td>
<td>The controller is not seeing continuity on the vacuum motor circuit. This can be caused by the wiring to the scrub brush motor(s), corroded connections or a faulty motor.</td>
</tr>
<tr>
<td>7701-7703</td>
<td>Vacuum Motor Circuit Over Current</td>
<td>The vacuum motor output is exceeding its limit. This can be caused by a faulty vacuum motor(s) or damaged vacuum motor wiring.</td>
</tr>
<tr>
<td>1E03</td>
<td>Charger / Seat Switch – Charger is plugged in or operator is not on the seat of ride on equipment.</td>
<td>On board charger is plugged into the wall outlet. Off board charger is plugged into charging port. The switch at the charger plug for an external charger is out of adjustment. (Operator is not present on seat GTR and EX machines Prior to Serial Number 100xxx)</td>
</tr>
<tr>
<td>7500</td>
<td>LCD Communication Error</td>
<td>The LCD lost communication to the controller. Check the 6 wire harness between the LCD module and it's connections.</td>
</tr>
<tr>
<td>7801-7802</td>
<td>Traction Motor Over Current</td>
<td>The traction motor output is exceeding its limit. Check to assure the parking brake is releasing when the throttle is engaged. Assure all wheels that contact the floor turn freely.</td>
</tr>
<tr>
<td>7804</td>
<td>Boost Mode</td>
<td>The code 7804 indicate the controller is in Boost Mode and considered normal under hard acceleration or when climbing a hill.</td>
</tr>
<tr>
<td>7900</td>
<td>Emergency Stop Activated</td>
<td>The emergency stop is activated. If the machine is not equipped with an emergency stop switch typically the LCD module has failed.</td>
</tr>
</tbody>
</table>