

LOCATION:	WRITTEN BY:	APPROVED BY:	DATE:	LAST REVISION:
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HAZARDS PRESENT	PERSONAL PROTECTIVE	ADDITIONAL REQUIREMENTS
<ul style="list-style-type: none"> <li>• Slip and fall</li> <li>• Corrosive chemicals</li> <li>• Risk of explosion or fire when charging.</li> <li>• MSI- Back injury</li> <li>• Electric shock</li> <li>• Surfaces causing falls – wet floors</li> <li>• Sharp point/edges</li> <li>• Vibration</li> <li>• Noise ~70-80 dBA</li> </ul>	<ul style="list-style-type: none"> <li>• Rubber gloves</li> <li>• Non-slip footwear</li> <li>• Hearing protection</li> <li>• "Wet Floor" sign</li> <li>• Safety Glasses</li> </ul>	<ul style="list-style-type: none"> <li>• Lift/material handling training</li> <li>• WHMIS training</li> </ul>

## SAFE WORK PROCEDURE

### PRE-JOB STEPS:

- Check equipment for any obvious defects or damage. Do not use a damaged machine and notify your supervisor.
- Complete the pre-run inspection prior to operating the equipment:
  - Check the water level of the batteries after charging – refill if necessary – see battery charging/filling at the end of the SWP
  - Visually check for damaged or worn tires
  - Check brush or pad for proper installation
  - Check vacuum hose connections
  - Check that the squeegee is securely attached
  - Check drain hoses, plug and cap are securely attached.
  - Check pedal, brake and steering for proper operation.
  - Check the squeegee to make sure it is clean. This will help prevent "streaking" the floor when washing it.
- Ensure the floor to be washed has been swept. Sweeping the floor properly will help prevent streaking as well as prolong the life of the auto-scrubber. Place out caution signs and barricades required in work area(s)
- Get help to move large or heavy objects or furniture. Remember to try to keep your back straight and use your weight to help slide objects rather than using only your arms. If lifting, bend and push through your legs. **Communicate the timing for the lift if lifting with another worker**

**PROCEDURE:**

- 1) Unplug the charger from the wall. Unplug the charger from the battery.
- 2) Connect the batteries to the machine connector.
- 3) Check the electrolyte level. It should be up to the indicator ring. If necessary, add distilled water. If necessary, add just enough distilled water to bring up the level to the indicator ring.
- 4) Install the rear cover.
- 5) Ensure the machine is in the OFF position.
- 6) Fill the solution tank:
  - a) Tilt console forward.
  - b) Push left or right fill port cover down. Fill the solution tank with clean hot water from the tap using a hose. Leave enough room for the required amount of cleaning solution. The solution tank capacity filled to fill inlet is 10 gallons (38 litres). The water must not be hotter than 140° F (60°C) to prevent damage to the tank.
  - c) Add the correct amount of cleaning solution to the clean water tank. Liquid chemicals should be added to the solution tank after filling with water.
- 7) Close console and latch rear cover.
- 8) Stand on the operator platform, with the throttle pedal in the neutral position, and turn the machine power on.
- 9) Press the Drive Reset / Directional Control Switch, selecting the desired travel direction.
- 10) Position the function control knob to the desired operation. The scrub deck and squeegee will lower, and the vacuum will turn on.

**ATTENTION:** When operating the machine around people, pay close attention for unexpected movement. Use extra caution around children.

- 11) Drive the machine forward to begin scrubbing. The scrub brush motor will run, and solution will flow when the throttle is depressed. Overlap the brush path and avoid transporting over previously cleaned areas. Continue to wash the floor

**HAZARD:** Flammable liquids and/or reactive metals can cause explosions or fire! Do not pick up.

- 12) To stop scrubbing, Rotate the function knob to either transport position. The brush motor and vacuum will stop and the scrub deck will rise to the park position, after a pre-programmed delay.
- 13) Allow the throttle pedal to return to neutral.
- 14) Turn machine power off.

**Emptying And Cleaning the Tank:**

- 15) After the floor has been washed empty the dirty water into the slop sink. If you do not have slop sink use a bucket.

**Recovery Tank:**

- a) Park the machine next to a floor drain or slop sink.
- b) Pull the recovery drain hose from the mounting pocket. Lift cap, pinch hose then lower hose in direction of the drain. Do not stand in front of end of hose. Recovered solution will come out with force.
- c) To flush the recovery tank, lift the control console to access the recovery tank. Do not use water hotter than 140°F (60°C) to clean tank.
- d) Clean debris from sight dome and cover surface.
- e) Clean off the float shut-off screen and inspect for free movement of float. Replace the drain cap and secure drain hose.
- f) Clean the outside of the tank and empty and clean out the debris bin.
- g) If machine is to be stored, tilt the recovery tank back and prop the console up, partially opening each.

**Solution Tank**

- a) Pull the solution drain hose from its mounting pocket. Lower hose in direction of drain.
- b) Open the control console and flush the solution tank out with clean water and run several gallons of clean water through systems. Do not use water hotter than 140°F (60°C) to clean tank.

**NOTE:** Never allow solution to remain in tank. Damage to tank, seals and valves could occur.

- c) Clean and inspect the solution filter strainer.

- 16) Park the auto-scrubber on a level surface. Turn off the machine and remove the key.
- 17) Remove and clean the squeegee blade and check for wear.
- 18) Clean the brush or pad and check for wear.

**Charging Batteries:**

Charge batteries if needed, battery charge level should not go below 25%.

- a) Charge batteries in a designated, well-ventilated area

**Hazard: hydrogen gas formed when the battery is being charged. Hydrogen gas can lead to fires and explosions.**

- b) Open the rear cover to expose the batteries and unplug the batteries from the machine.
- c) Unplug the battery connector from the machine.
- d) Rinse off the batteries, and clean terminals before recharging.
- e) Fill electrolyte solution (Sulfuric Acid) to the prescribed level before charging to reduce the possibility of the electrolyte heating up excessively.
- f) If water is added, use distilled water, not tap water.
- g) Plug the charger connector into the battery connector. Plug the charger plug into the wall. The charger gauge should indicate that the batteries are charging.

**REFERENCE DOCUMENTS**

- WS&H Act W210, Section 4, 5, 7, 7.1
- MB. Regulations 217/2006,
  - Part 2, Section 2.1 Safe Work Procedures
  - Part 6, Section 6.1 PPE
  - Part 35.0 WHMIS
  - Part 36.0 Chemical Biological Substances
- Instruction Manual for Chariot 2 iScrub 20 floor scrubber machine.
- [CCOHS battery charging hazards](#)