

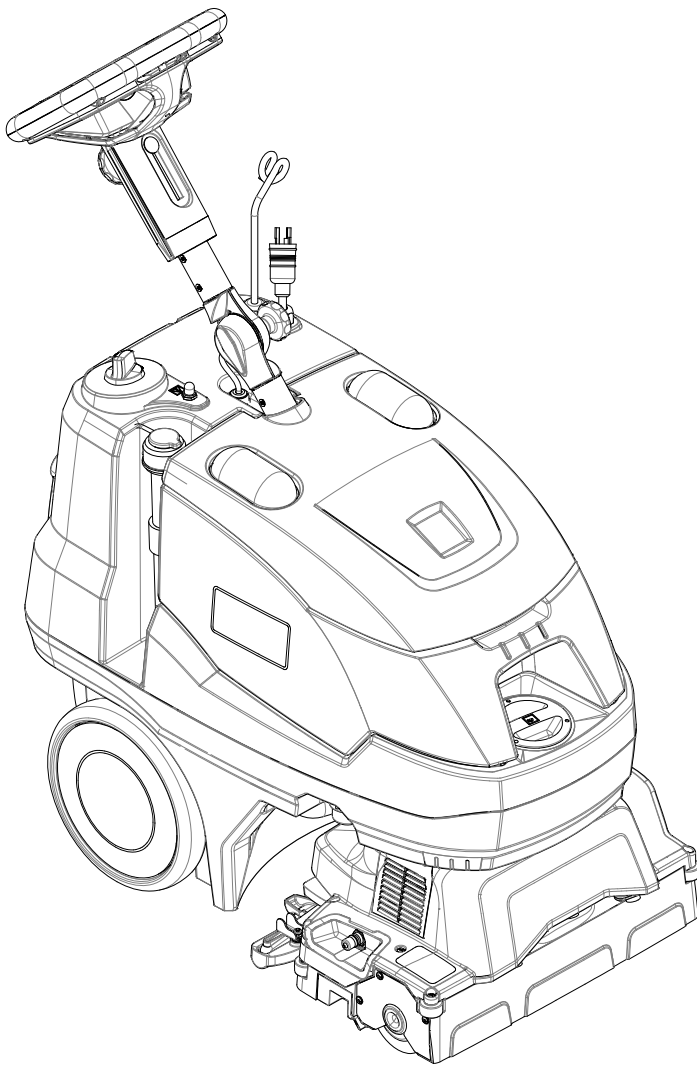
# KÄRCHER

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## Armada BRC 40/22 120V

English

02



From Serial Number (Ref No. 1\*)  
\* See Serial Number page in Spare  
Parts List or call manufacturer.



**Register  
your product**

[www.kaercher.com/welcome](http://www.kaercher.com/welcome)



86409500-G 01/13/20

## Machine Data Label

Model: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Sales Representative: \_\_\_\_\_

### Overview

This carpet extractor is an electrical powered, portable carpet extractor intended for commercial use. The appliance sprays a cleaning solution onto the carpet, agitates the wet carpet, and then extracts the soiled solution back into the unit's recovery tank. The appliance is available with an optional hand tool for cleaning upholstery and stairs.

**MODELS: 1.008-060.0 BRC 40/22**

Karcher North America Headquarters

4555 Airport Way

Denver, CO 80239

### Warranty Registration

Thank you for purchasing a Kärcher North America product. Warranty registration is quick and easy. Your registration will allow us to serve you better over the lifetime of the product.

To register your product go to :

<http://warranty.karcherna.com>

For customer assistance:

1-800-444-7654

**KÄRCHER**

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## How To Use This Manual

This manual contains the following sections:

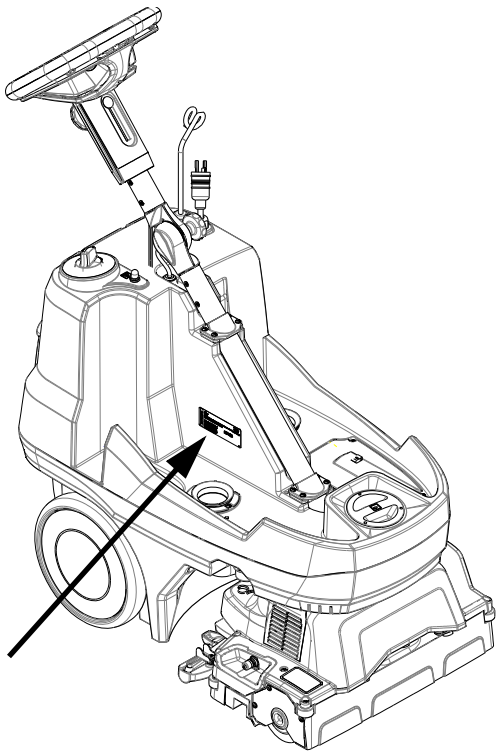
- How to Use This Manual
- Safety
- Operations
- Maintenance

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model:	_____
Date of Purchase:	_____
Serial Number:	_____
Dealer:	_____
Address:	_____
Phone Number:	_____
Sales Representative:	_____

The model and serial number of your machine are located under the recovery tank as shown below:



The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance information to keep the machine and its components in good working condition. They are listed in this general order:

- Service Schedule
- Components
- Periodic Maintenance
- Daily/Regular Maintenance
- Scrub Deck & Brush Replacement
- Circuit Protection
- Troubleshooting

*NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.*

*NOTE: The manual part number is located on the lower right corner of the front cover.*

## Safety Labels

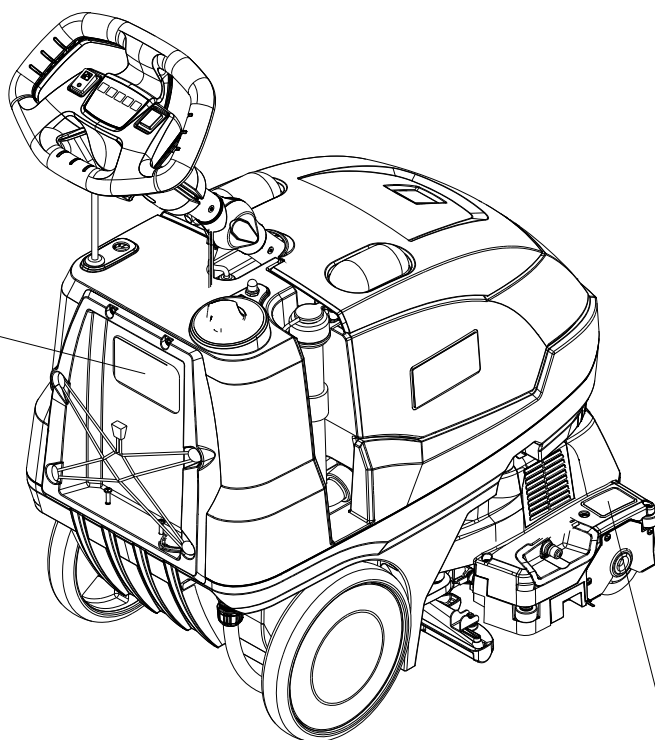
*NOTE: These drawings indicate the location of safety labels on the machine. If at any time the labels become illegible, promptly replace them.*

### EMPLACEMENT DE L'ÉTIQUETTE DE SÉCURITÉ

*REMARQUE : Ces dessins indiquent l'emplacement des étiquettes de sécurité sur la machine. Si, à tout moment, les étiquettes deviennent illisibles, contactez votre représentant autorisé pour un remplacement rapide*



WARNING LABEL  
86242230



WARNING LABEL  
86402490

# IMPORTANT SAFETY INSTRUCTIONS

**When using this machine, basic precaution must always be followed, including the following:  
READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.**

**⚠ WARNING:** To reduce the risk of fire, electric shock, or injury:

Connect to a properly grounded outlet. See Grounding Instructions.

Do not leave the machine unattended. Unplug machine from outlet when not in use and before maintenance or service.

Use only indoors. Do not use outdoors or expose to rain.

Do not allow machine to be used as a toy. Close attention is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended components and attachments.

Do not use damaged electrical cord or plug. Follow all instructions in this manual concerning grounding the machine. If the machine is not working properly, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

Do not pull or carry machine by electrical cord, use as a handle, close a door on cord, or pull cord around sharp edges or corners.

Do not allow the supply cord to come into contact with the rotating brushes. Keep cord away from heated surfaces.

Do not unplug machine by pulling on cord. To unplug, grasp the electrical plug, not the electrical cord.

Do not handle the electrical plug or machine with wet hands.

Do not operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

This machine is intended for cleaning carpet only.

Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.

This machine is not suitable for picking up health endangering dust.

Turn off all controls before unplugging.

Do not operate this machine near flammable fluids, dust or vapors. Do not pick up flammable or combustible liquids such as gasoline, and do not operate in locations where they may be of such liquids.

Maintenance and repairs must be done by qualified personnel.

If foam or liquid comes out of machine, switch off immediately.

## READ AND SAVE THESE INSTRUCTIONS

# CONSIGNES DE SÉCURITÉ IMPORTANTES

Lors de l'utilisation de cette machine, des précautions de base doivent toujours être prises, y compris les précautions suivantes :  
**LIRE TOUTES LES INSTRUCTIONS AVANT D'UTILISER CETTE MACHINE.**

**⚠ AVERTISSEMENT:** Pour réduire le risque d'incendie, d'électrocution ou de blessure :

Cet appareil ne doit être connecté qu'à des prises ayant une sortie de terre.

Ne pas laisser l'appareil sans surveillance lorsqu'il est branché. Débrancher lorsque l'appareil n'est pas utilisé et avant l'entretien.

Pour réduire les risques de choc électrique, ne pas utiliser à l'extérieur et ne pas aspirer de matières humides.

Ne pas permettre aux enfants de jouer avec l'appareil. Une attention particulière est nécessaire lorsque l'appareil est utilisé par des enfants ou à proximité de ces derniers.

Utiliser cet appareil conformément aux instructions du présent manuel uniquement. N'utiliser que conformément à cette notice avec les accessoires recommandés par le fabricant.

Ne pas utiliser si le cordon ou la fiche est endommagé. Retourner l'appareil à un atelier de réparation s'il ne fonctionne pas bien, s'il est tombé ou s'il a été endommagé, oublié à l'extérieur ou immergé.

Ne pas tirer, soulever ou traîner l'appareil par le cordon. Ne pas utiliser le cordon comme une poignée, le coincer dans l'embrasure d'une porte ou l'appuyer contre des arêtes vives ou des coins. Ne pas faire rouler l'appareil sur le cordon.

Ne pas laisser le cordon d'alimentation entrer en contact avec les brosses rotatives. Garder le cordon à l'écart des surfaces chaudes.

Ne pas débrancher en tirant sur le cordon. Tirer plutôt la fiche.

Ne pas toucher la fiche ou l'appareil lorsque vos mains sont humides.

N'insérer aucun objet dans les ouvertures. Ne pas utiliser l'appareil lorsqu'une ouverture est bloquée. S'assurer que de la poussière, de la peluche, des cheveux ou d'autres matières ne réduisent pas le débit d'air.

Cette machine est destinée pour nettoyer tapis seulement.

Ne pas aspirer de matières en combustion ou qui dégagent de la fumée, comme des cigarettes, des allumettes ou des cendres chaudes.

Cette machine n'est pas adaptée au ramassage de poussières dangereuses.

Mettre toutes les commandes à la position ARRÊT avant de débrancher l'appareil.

Ne pas utiliser près de liquides, de poussières ou de vapeurs inflammables. Ne pas aspirer des liquides inflammables ou combustibles, comme de l'essence, et ne pas faire fonctionner dans des endroits où peuvent se trouver de tels liquides.

L'entretien et les réparations de la machine doivent être effectués par un personnel qualifié.

Si de la mousse ou du liquide sort de la machine, la mettre hors tension immédiatement.

## LIRE ET CONSERVER CES INSTRUCTIONS

## **Safety**

---

The following symbols are used throughout this guide as indicated in their descriptions:

### **HAZARD INTENSITY LEVEL**

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:



**WARNING** - Hazards or unsafe practices which COULD result in severe personal injury or death.



**CAUTION** - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

### ***FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.***

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

#### ***FOR SAFETY:***

**DO NOT OPERATE MACHINE:**

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects

#### ***WHEN SERVICING MACHINE:***

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use manufacturer approved replacement parts.



Les symboles suivants sont utilisés dans tout ce manuel, tels que décrits ici :

## NIVEAU D'INTENSITÉ DU DANGER

Il existe trois niveaux d'intensité du danger, identifiés par des termes d'avertissement - **AVERTISSEMENT**, **ATTENTION** et **POUR VOTRE SÉCURITÉ**. Le niveau d'intensité du danger est déterminé par les définitions suivantes :

### **! AVERTISSEMENT:**

**AVERTISSEMENT** - Les dangers ou des pratiques contraires à la sécurité qui POURRAIENT entraîner des blessures personnelles ou la mort.

### **! ATTENTION:**

**ATTENTION** - Les dangers ou des pratiques contraires à la sécurité qui pourraient entraîner des blessures personnelles légères ou des dégâts sur le produit ou d'autres biens.

#### ***POUR DES RAISONS DE SÉCURITÉ : Pour identifier les actions qui doivent être exécutées pour un fonctionnement sûr de l'équipement.***

Signaler immédiatement tout dommage subi par la machine ou fonctionnement défectueux. Ne pas utiliser la machine si elle ne fonctionne pas correctement. Ci-dessous se trouvent les informations indiquant les conditions potentiellement dangereuses pour l'opérateur ou l'équipement. Lire attentivement ces informations. Être conscient que ces conditions peuvent survenir. Repérer tous les dispositifs de sécurité sur la machine. Suivre les étapes nécessaires de formation du personnel qui utilise la machine.

#### ***POUR DES RAISONS DE SÉCURITÉ :***

**NE PAS FAIRE FONCTIONNER LA MACHINE :**

Sauf si le personnel est formé et autorisé.

Sauf si le manuel d'utilisation est lu et compris.

Dans des zones inflammables ou explosives.

Dans des zones contenant des objets susceptibles de tomber

#### ***LORS DE L'ENTRETIEN DE LA MACHINE :***

Éviter les pièces mobiles. Ne pas porter de vêtements, vestes, chemises ou manches vagues lors de l'entretien de la machine. Utiliser les pièces de rechange approuvées par le fabricant.

## Safety

### Grounding Instructions

#### THIS PRODUCT IS FOR COMMERCIAL USE ONLY.

#### Electrical:

In the USA this machine operates on a standard 15 amp 120V, 60 hz, A.C. power circuit. The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

#### Extension Cords:

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine, and must be limited to 50 feet (15.5m) in length.

#### Grounding Instructions:

This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

### 120 Volt Models:

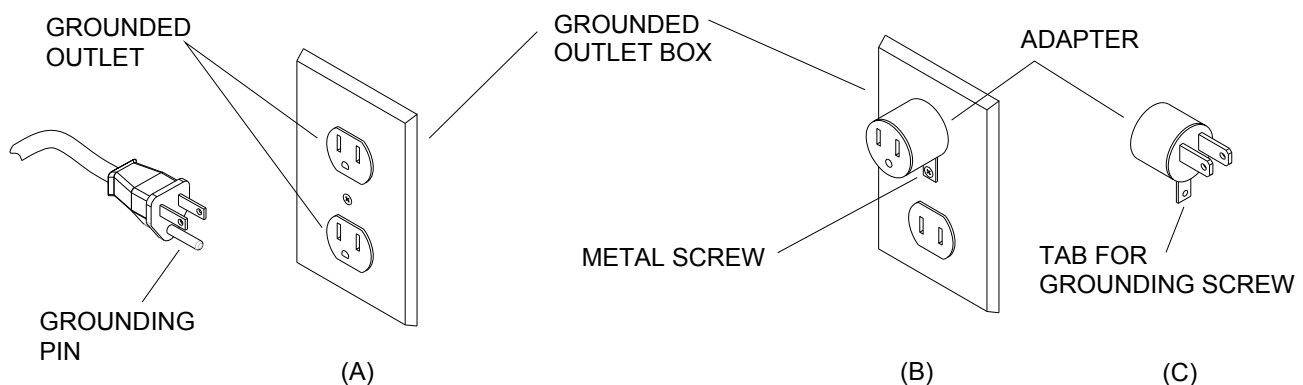
This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adapter that looks like the adapter in "Fig. C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or wire extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

### ! WARNING:

**Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.**

### ! AVERTISSEMENT:

**Le raccordement incorrect du conducteur de terre d'équipement peut entraîner des risques d'électrocution. Vérifiez auprès d'un électricien qualifié ou d'un responsable de l'entretien si vous avez quelque doute que ce soit quant au raccordement à la terre de votre prise murale. Ne modifiez pas la fiche fournie avec l'appareil : si elle ne correspond pas à la prise murale, faites installer une prise adéquate par un électricien qualifié.**



## How This Machine Works

This carpet extractor is an electrical powered, self contained portable carpet extractor intended for commercial use. The appliance sprays a cleaning solution onto the carpet, agitates the wet carpet and then extracts the soiled solution back into the unit's recovery tank. The appliance is usable with an optional hand tool for cleaning upholstery and stairs.

The machine is also designed to restore your carpet using carpet extraction chemicals.

The machine is designed to apply cleaning solution onto carpeted floor, scrub the carpet with its brush, and then vacuum the soiled water back into the recovery tank.

The machine is designed to maintain your carpet using the Encapsulating Interim Carpet Cleaning Process. By using the Interim Carpet Maintainer in conjunction with Windsor Red Carpet Encapsulating Interim Cleaning (W450-4) or Encapsulating Interim Cleaning with Carpet Protection (W455-4) chemical solution, you can perform a regular light cleaning and grooming of your carpet very quickly, and have the carpet dry and ready for traffic within 30 minutes.

The machine's primary systems are the solution system, scrub system, recovery system and operator control system.

The function of the solution system is to store mixed solution and deliver solution to the appropriate spray jet(s) or port. The solution system consists of the solution tank, strainer, pump, solenoid valves, spray jets and accessory port. The solution tank stores the water and chemical solution. The strainer protects the system from debris. The solution pump moves the cleaning solution flow. The solenoids control the direction of the solution flow. The jets deliver the solution to the floor. The accessory port allows connection to a hand tool.

The function of the scrub system is to scrub the carpet, mix the cleaning solution with the soil and lift and groom the carpet pile as well as provide machine propel assistance. The scrub system consists of a cylindrical brush, a motor and brush height adjustments. The brush scrubs the carpet as the motor drives the brush. The brush height adjustment allows for the proper amount of agitation given various carpet types and brush wear.

The function of the recovery system is to vacuum the soiled water back into the recovery tank. The recovery system consists of the vacuum shoe, vacuum motor, float ball filter and recovery tank. The vacuum shoe extracts the dirty solution from the carpet as the machine moves forward. The vacuum motor provides suction to draw the dirty solution off the floor and into the recovery tank. The float ball filter protects the vacuum fan from debris and foam. The recovery tank stores the dirty solution.

The function of the operator control system is to allow the operator to select the desired function to perform.

*NOTE: For best results, use this machine immediately after vacuuming. Do not use this machine as a vacuum cleaner. It is not intended to vacuum dry dust, only soiled water.*

### **CAUTION:**

This appliance is not suitable for picking up hazardous dust.

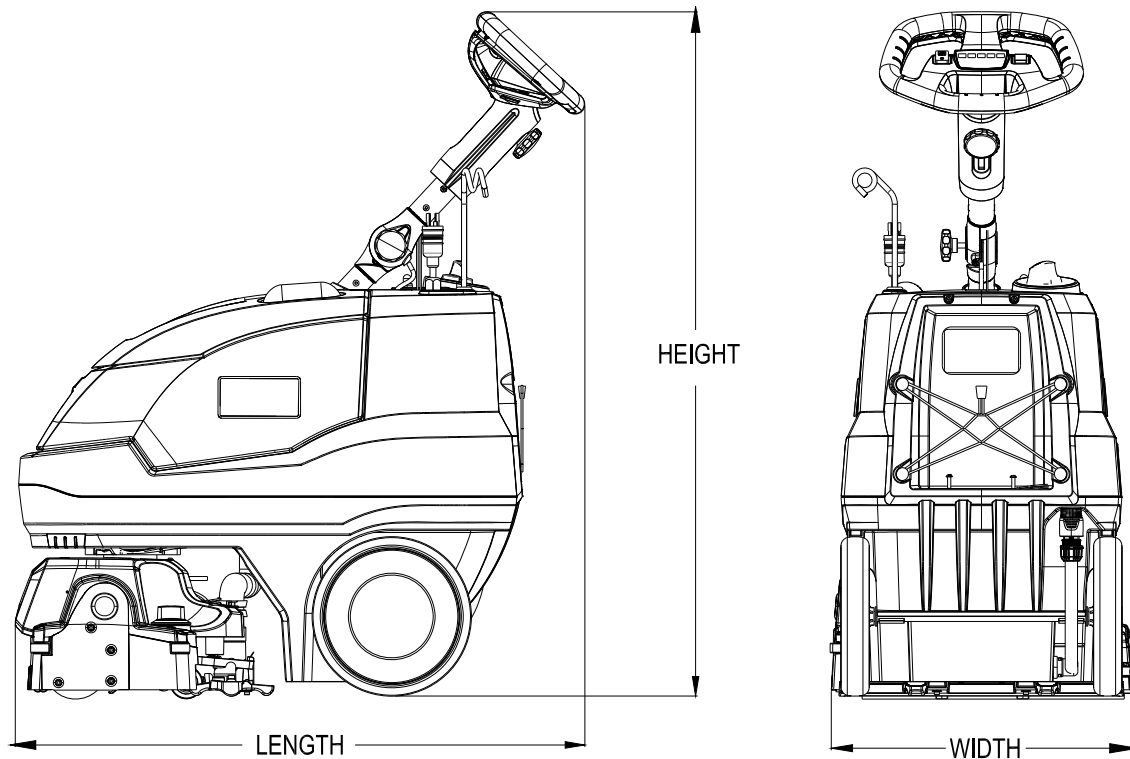
### **ATTENTION:**

Cet appareil n'est pas conçu pour aspirer des poussières dangereuses.

## Operations

### Technical Specification

ITEM	MEASURE
Height	44 inches (1118 mm)
Length	35 inches (889 mm)
Width	18.5 inches (470 mm)
Width of scrub path	16 inches (406 mm)



### **⚠ CAUTION:**

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

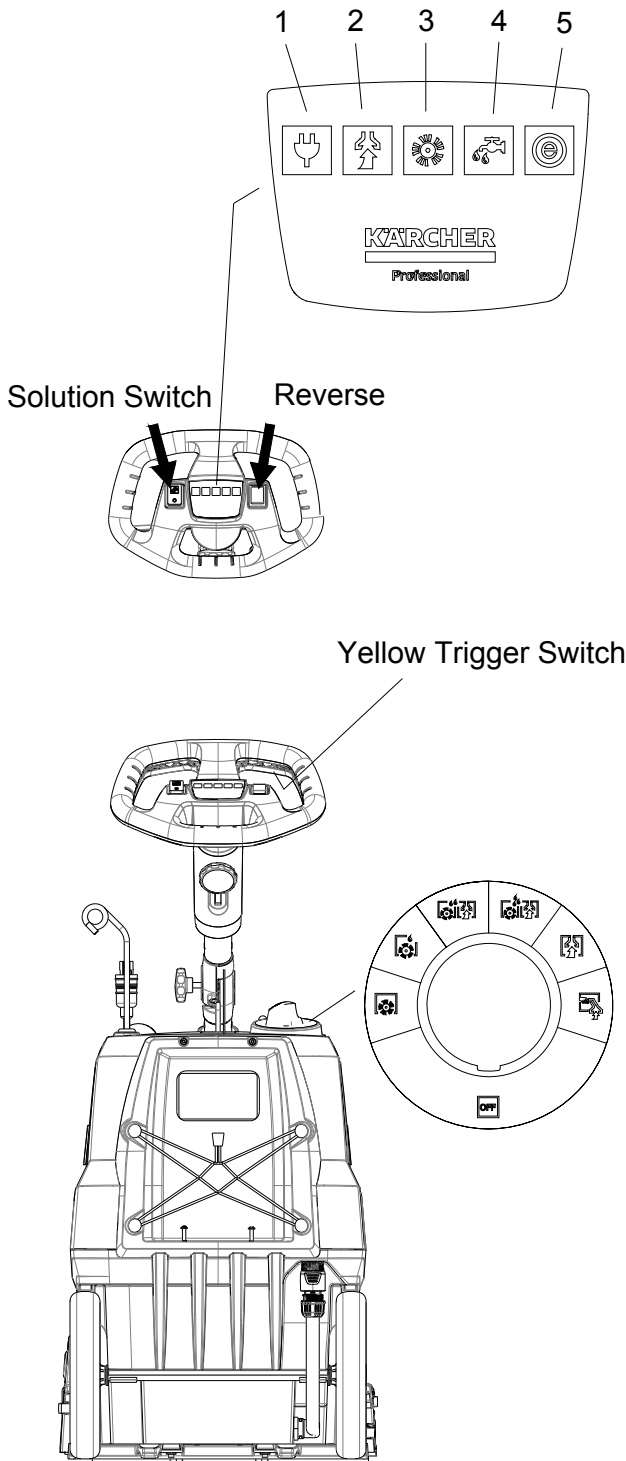
### **⚠ ATTENTION:**

Cet appareil n'est pas prévu à l'usage des personnes (enfants y compris) avec des possibilités physiques, sensorielles ou mentales réduites, ou le manque d'expérience et de connaissance, à moins qu'ils aient été donnés la surveillance ou l'instruction au sujet de l'utilisation de l'appareil par une personne chargée de leur sûreté. Des enfants devraient être dirigés pour s'assurer qu'ils ne jouent pas avec l'appareil.

**Technical Specifications**

<b>ITEM</b>	<b>DIMENSION/CAPACITY</b>
Construction	Plastic Injection-molded chassis with rotationally molded polyethylene tank
Vacuum Motor	Three stage, bypass, 1.5 hp (1,119 watts), 100 cfm (2.8m <sup>3</sup> /min), 120" (3050 mm) waterlift
Solution Pump	50 psi (3.5 bar) - Interim 100 psi (7 bar) - Restorative
Brush Motor	.53 hp (400 watts) DC
Brush	16" (406 mm), ABS core
Cleaning Path	16" (40.6 cm)
Flow Rate	Interim - 0.10 gpm ( 0.38 lpm) Restorative - 0.65 gpm (2.5 lpm)
Solution Spray	Interim - One quick-disconnect jet Restorative - Two quick-disconnect jet
Solution Tank	6 gallons ( 22 L)
Recovery Tank	5 gallons (19 L)
Vacuum Shoe	19" (483 mm) wide
Wheels	10" (254 mm) non-marking rubber
Power Cable	50' (15 m) detachable
Weight	100 lbs (45.5 kg) with cord
<b>NOISE EMISSION</b>	
Sound Pressure Level (EN 60704-1)	68.4 dB(A) Normal 65.3 dB(A) ECO
<b>MACHINE VIBRATION</b>	
Vibration Total Value (ISO 5349)	0.70 m/s <sup>2</sup>

## Controls



## Display

The LED lights in the center are (from left to right):

1. Power
2. Vacuum
3. Brush
4. Solution
5. Eco! Mode.

The switch on the left controls the solution flow. The switch on the right allows the operator to reverse the brush motor, effectively moving the machine in an opposite direction.

The yellow trigger switch on the steering wheel will turn on the brush and solutions depending on which mode the control switch is in.

## Main Rotary Control Switch

Beginning with the off position and working clockwise, the modes of operation are:

- Brush Only
- Encapsulation Mode
- Eco! Mode Extraction
- Deep Extraction
- Vacuum Only
- Accessory Tool

## Display

### 1. Power Light

- Green indicates that the machine has power.
- Off indicates the machine does not have power or rotary switch is set to the off position.
- See Trouble Shooting section if Green light is not on when it should be.

### 2. Vacuum Light

- Green indicates the vacuum motor is running properly.
- Flashing Red light: See Trouble Shooting section

### 3. Brush Light

- Green indicates the brush is set and working properly.
- Amber (Orange) indicates the brush motor is overworking: See Troubleshooting section.
- Flashing Red light: See Trouble Shooting section.

### 4. Solution Light

- Green indicates that the solution pump is working properly
- Flashing Red light: See Trouble Shooting section.

### 5. Eco! Light

- Blue indicates the machine is in Eco! mode.

## Main Rotary Control Switch Modes



### Brush Only

- The brush will spin (when the yellow trigger switch is engaged). If the reverse switch is also engaged, the brush will spin backwards.



### Encapsulation

- The brush will spin and solution will be sprayed from the interim jet. If in reverse, no solution will spray.



### Eco! Extraction

- The brush will spin, the solution will be sprayed from the deep jets at a reduced flow and vacuum motor will run at a reduced pressure and lower sound level.



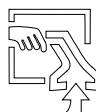
### Deep Extraction

- The brush will spin, the solution will be sprayed from the deep jets and the vacuum motor will run.



### Vacuum Only

- The vacuum motor will run and the brush will spin.



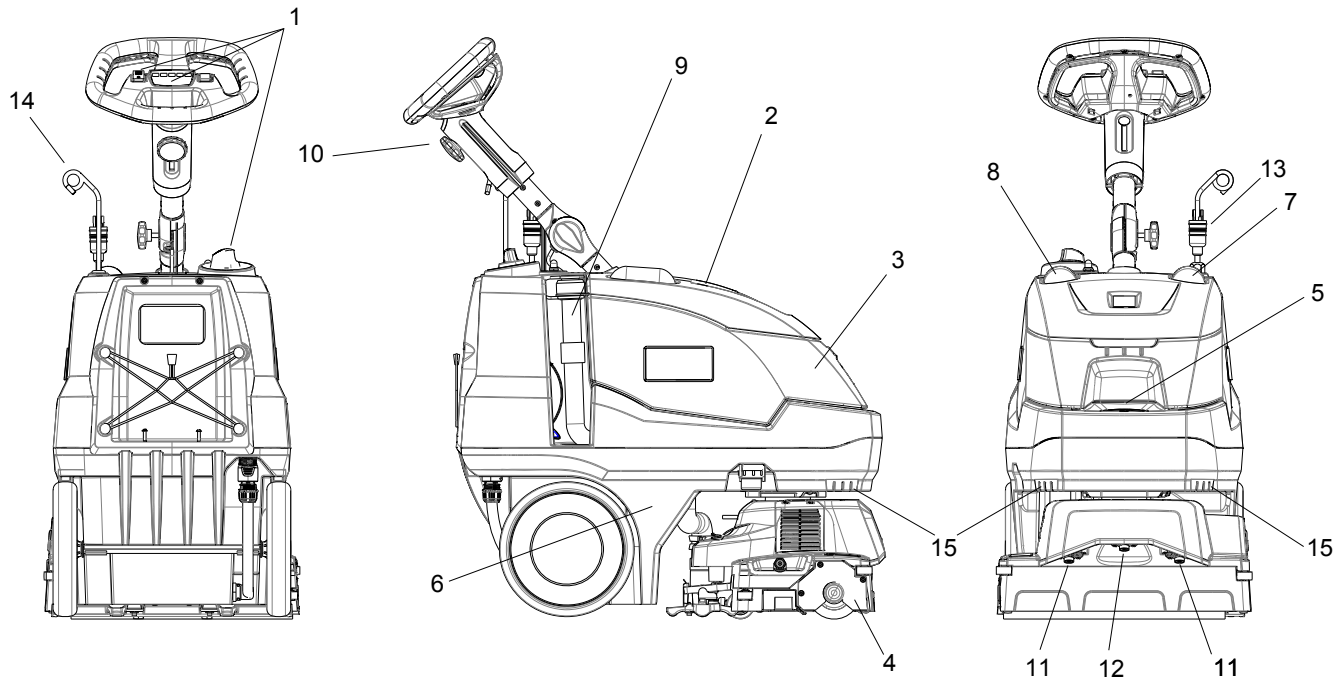
### Accessory Tool

- The vacuum motor will run and solution will be supplied to the accessory port if the solution switch is turned on.

## Rear Cover Storage

Use the rear storage area to hold small cleaning bottles and tools. Do not use the elastic straps to hold large heavy objects.

# Operations

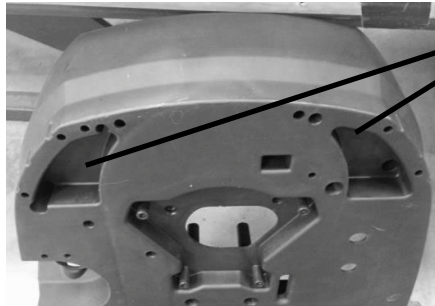


## Components

- |                                       |   |
|---------------------------------------|---|
| 1. Operator Controls and Display      | 8. Dirty Water Clear Observation Cover            |
| 2. Recovery Lid                       | 9. Recovery Drain Hose                            |
| 3. Recovery Tank                      | 10. Control Height Adjustment - Operator Controls |
| 4. Scrub Deck                         | 11. Deep Extraction Jets                          |
| 5. Solution Fill Cover                | 12. Interim Jet                                   |
| 6. Solution Tank                      | 13. Power Cord Connection                         |
| 7. Vacuum Air Clear Observation Cover | 14. Extension Cord Holder                         |
|                                       | 15. Grips for lifting machine                     |

## Transporting The Machine Over Stairs

The machine should be carried up or down stairs by two people. One person to grab the front of the solution tank using the two grip points / pockets on the front lower section. With the steering wheel fully extended, the second person can grab the steering wheel

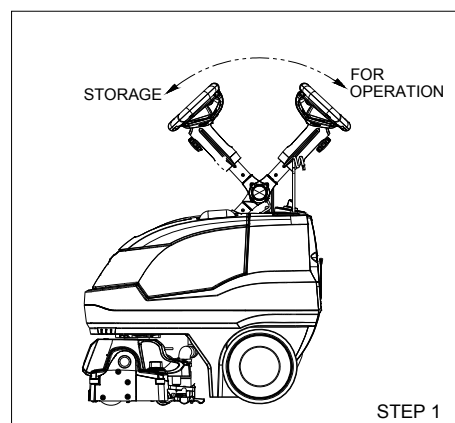


**NOTE:** Never grab the brush deck or the steering wheel as lifting machine will pivot around the steering column.

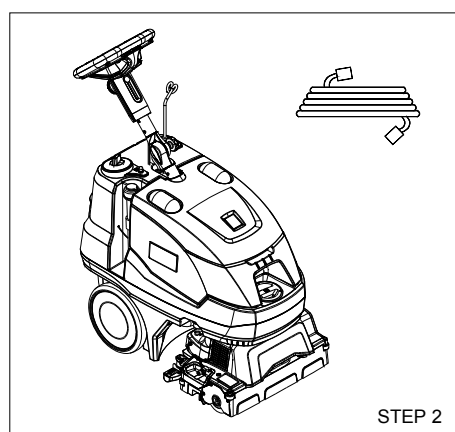


## Pre Run Setup

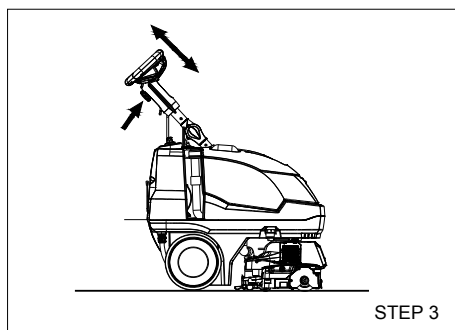
1. To unfold handle, loosen knob, rotate upper steering column and steering wheel back to stop. Tighten knob.



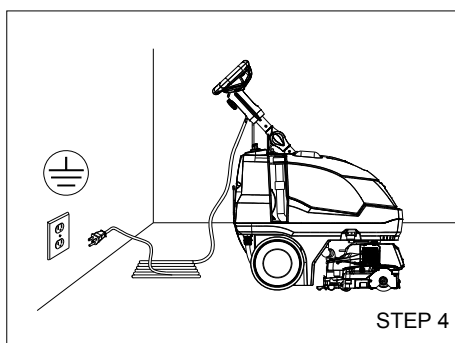
2. Install the vacuum shoe and brush. Fill solution tank with water and chemical. (see Filling the Solution Tank instructions).



3. To adjust handle to comfortable operating position, loosen knob, slide to comfortable height and tighten.



4. Plug cord into grounded outlet. Place the power cord in its holder on the machine by wrapping it through the Cord Holder and plugging it into the pigtail of the machine.



# Operations

## Filling The Solution Tank

- Do not put defoamer or solvent chemicals in the solution tank.
- Do not allow water to spill into vacuum motor inlet.
- Dry spills from top of solution tank.
- Do not tip machine on back when full as water may spill from machine.

Use only the suitable chemicals listed below. Using incompatible chemicals will damage the machine. Damages of this type are not covered under warranty. Carefully read ingredients on manufacturer's label before using any product in this machine.

### Chemicals

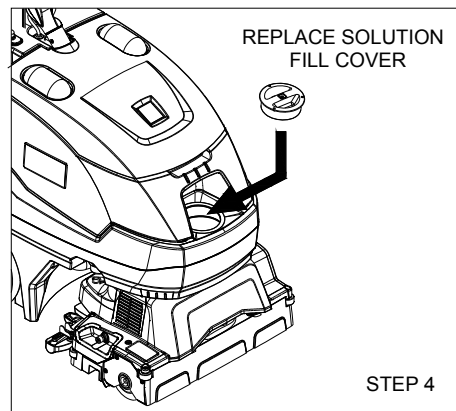
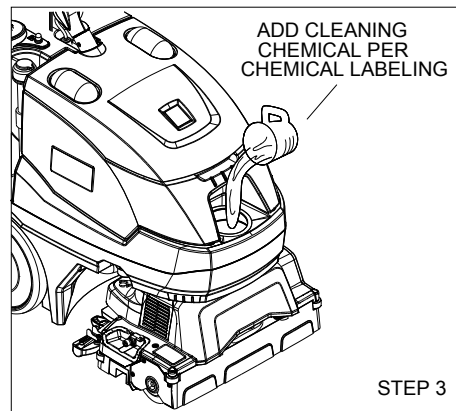
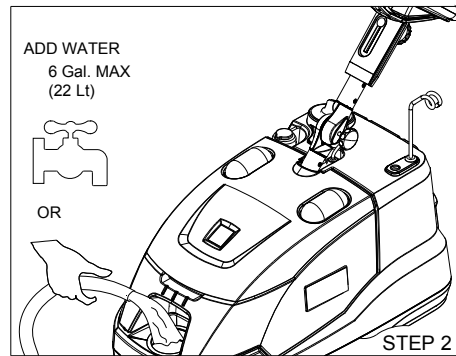
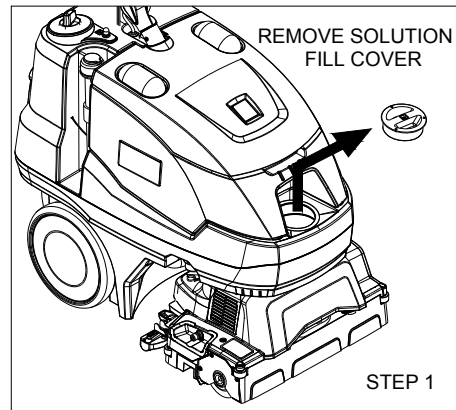
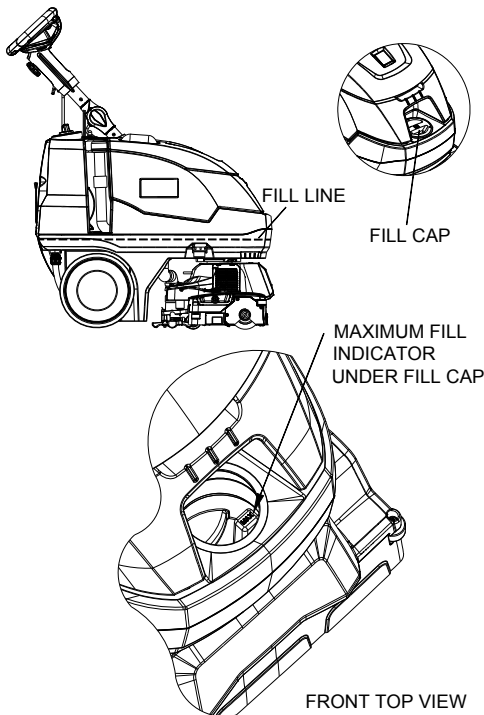
#### Suitable Chemicals

- Alkalis
- Detergents
- Hydroxides
- Soaps
- Vinegar

#### Non-Compatible

- Chemicals**
- Aldehydes
- Aromatic Hydrocarbons
- SP Butyls
- Carbon Tetrachloride
- Clorox\*
- Chlorinated Bleaches
- Chlorinated Hydrocarbons
- Lysol\*
- Methyl Ethel Ketone (MEK)
- Perchorethylene (perc)
- Phenolics
- Trichlorethylene
- D-Limonene

\*Product Trademark Names



## Operating The Machine

### Expected Run Time

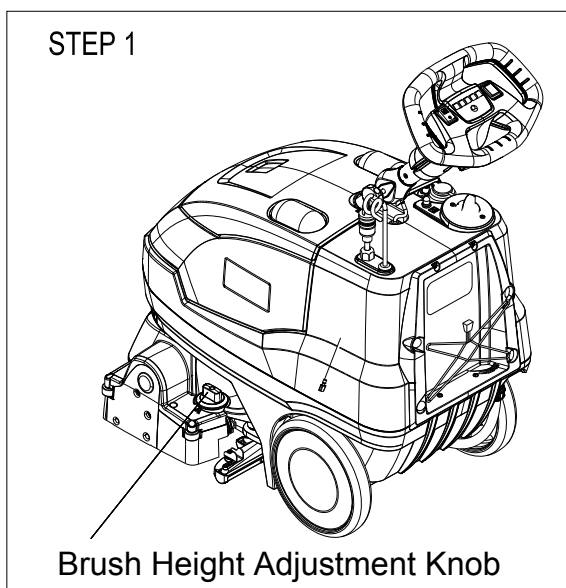
The expected run time for this machine depends upon which mode the machine is in. This duty cycle includes an amount of time that the machine will be running along with a period of time that the machine should be off to empty the Recovery Tank, fill the Solution Tank, check the Brush, and remove debris from the Debris Tray.

Typical Run Time for each Mode:

Deep Extract	10 minutes ON
	10 minutes OFF
Eco Mode	30 minutes ON
	10 minutes OFF
Interim Mode	60 minutes ON
	10 minutes OFF

### Brush Height Adjustment

Before adjusting brush height, transport the machine to the work area by lifting the scrubbing head off of the ground and rolling the machine on the rear wheels.

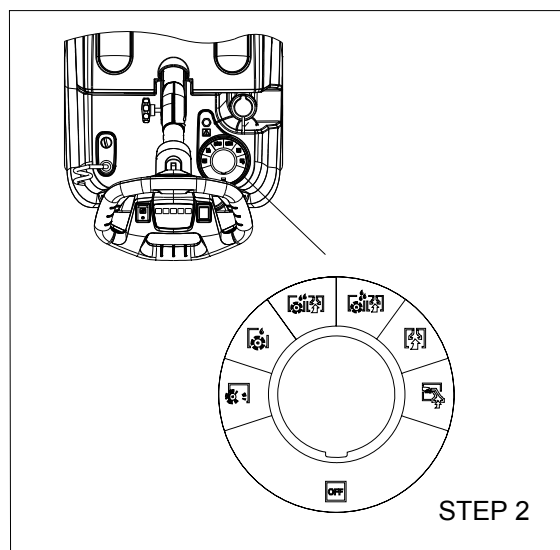


- To set brush height for cleaning mode and carpet type:
  - Place the machine on the deck kick stand by tipping the machine back about 30 degrees and then setting the machine deck back to the ground.

- Rotate the brush height adjustment knob to position "1" which is the highest brush position. Roll the machine forward to lower the machine off the kickstand.
- Run the machine on the carpet to be cleaned. The machine should now assist in the forward direction due to the brush running on the carpet. If not, raise the deck back onto the kickstand and rotate the brush height adjustment knob to the next lower brush position.
- Re-run the machine on the carpet and test for forward assist; repeat previous step if necessary.
- If after a few seconds of running the brush light flashes red, rotate the brush height adjustment knob to the next lower number position which raises the brush and retest. If the brush light continues to flash red, consult the Troubleshooting section.

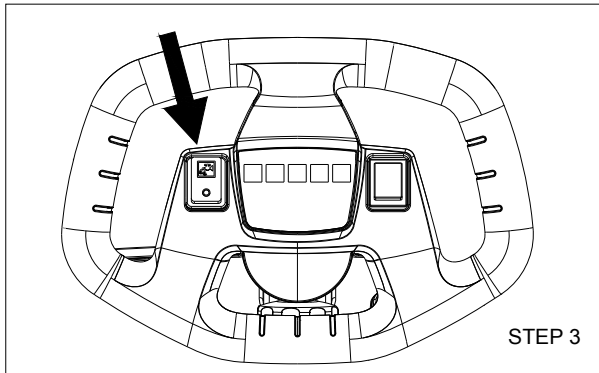
- Select a mode from the Main Rotary Control Switch for the desired results.

See Controls section for detailed description of each function.



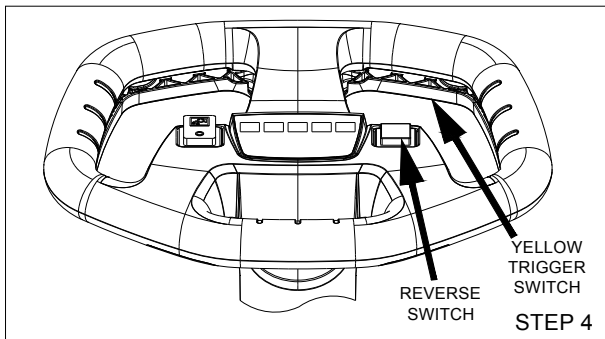
## Operations

### Operating The Machine

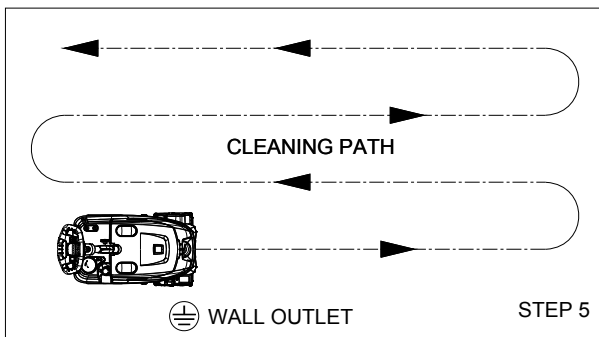


3. Turn on Solution Switch.

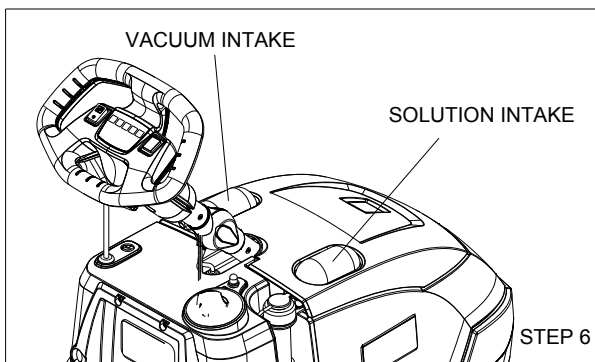
- Press the bottom of the switch to turn solution on.
- Press the top of the switch to turn solution off.



4. Squeeze the large Yellow Trigger Switch to make the machine move, run the brush and dispense solution. Use the steering wheel to guide the machine in the intended direction. Press the bottom of the Reverse Switch to make the machine travel backward while the yellow trigger switch is depressed.



5. Start at wall closest to power outlet. For large areas, operate machine in parallel passes, overlapping brush path. Clean perimeter last with right side of machine toward outside of perimeter.

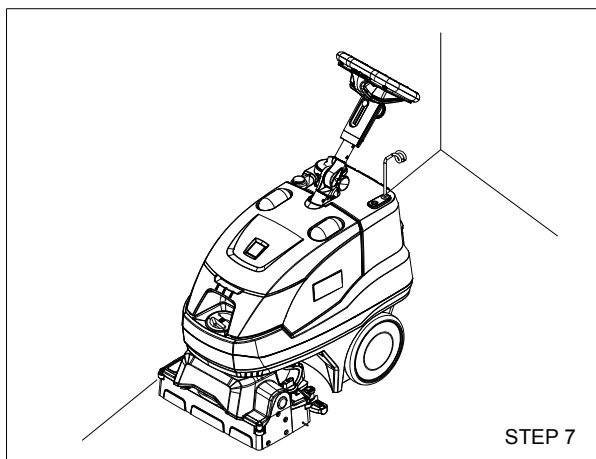


6. During operation, observe the following:

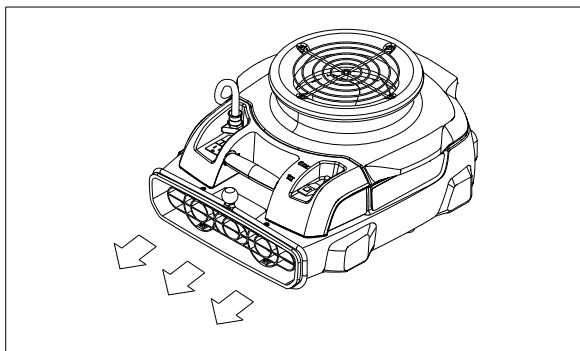
This machine is equipped with clear dome to facilitate operator viewing of dirty solution and vacuum air flow.

During operation, observe the vacuum intake:

Any amount of water or foam entering the vacuum system can damage the vacuum motor. If you notice either condition, shut down the machine immediately. Empty recovery tank and/or add defoamer to recovery tank.



7. Use right side of machine for cleaning along walls.



8. To speed drying, use an airmover fan.

## Operations

### To Clean Under Desks Or Dead End Hallways

By activating the momentary reverse switch, the brush will spin in the opposite direction. Along with the reverse switch, the trigger switch around the steering wheel must also be engaged.

If the deck is pointing forward, jets in front, the machine will propel backwards when the switch is pushed. This is useful when cleaning under a desk or in a dead end hallway where it is hard to turn around. This can be used to scrub back and forth over a spot on the floor.

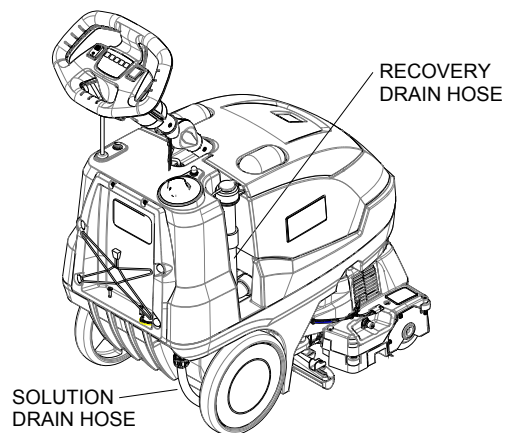
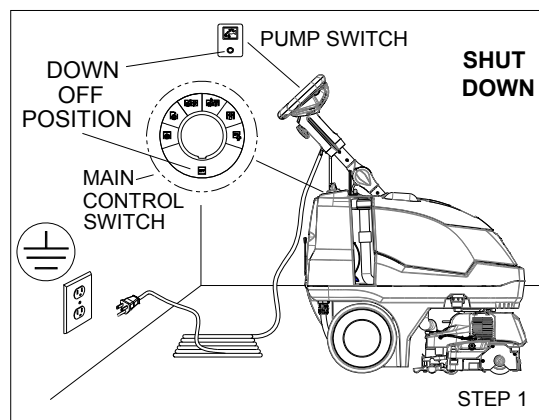
If the deck is spun 180 degrees, vacuum shoe in the front, the machine will propel forward when the switch is pushed. This is useful to drive the machine under a desk or in a dead end hallway to be able to get the vacuum shoe close to the wall.

### Emptying Recovery Tank

If solution tank is empty, recovery tank is full or cleaning is finished for the day, empty the recovery tank.

1. Turn off all controls, and carefully unplug machine.
2. Bring either the whole machine or just the recovery tank to an approved drain.
3. Remove the recovery lid and rinse off any debris.
4. Empty recovery tank by releasing recovery drain hose. Use a hose with cold water to clean out the recovery tank.
5. Remove the recovery drain hose end above water line and remove the cap. Squeeze the hose section below the cap and lower the hose towards the drain. Regulate the flow by the amount you squeeze the hose.
6. Rotate the tank in a spiral direction to drain all dirty water from the back left corner. If recovery tank is still on the machine while draining, make sure the deck is not on the kickstand to ensure the recovery tank is emptied completely.
7. Use cold water to rinse all debris from the inside of tank. Turn tank upside down and run water through the two molded-in tubes going through the tank. Turn tank right side up and rinse inside again.
8. Rotate the tank in a spiral motion to ensure all water is drained from the back left corner.
9. Ensure that the two lip seals are in place on the base machine to line up with the molded-in tubes in the recovery tank and clean off any debris.

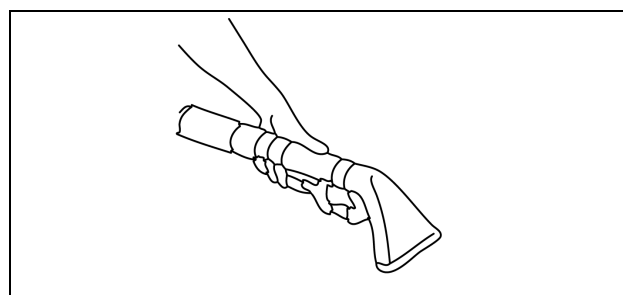
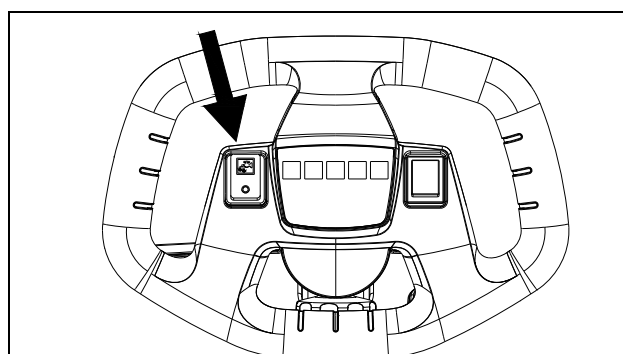
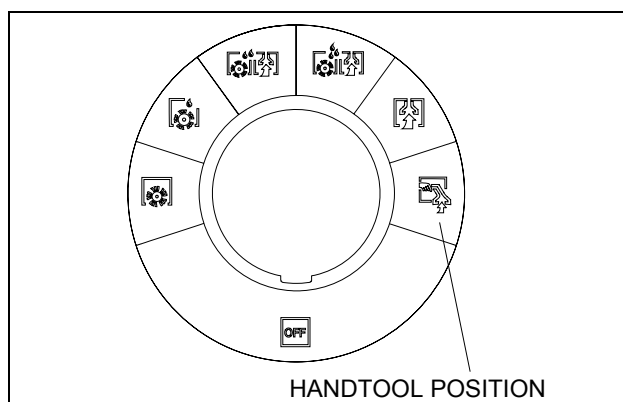
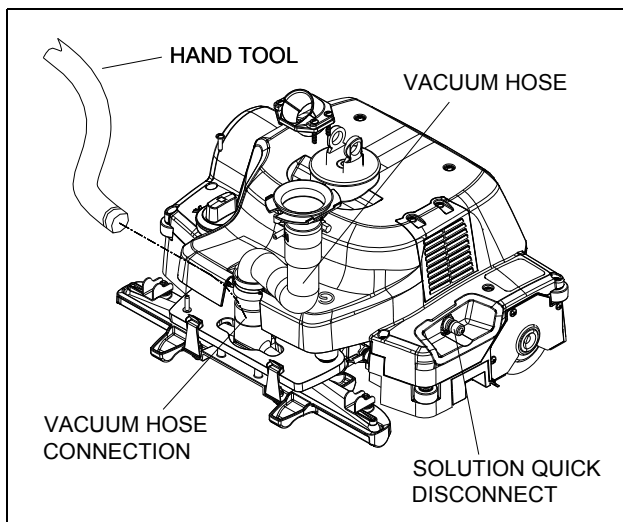
10. Place the tank back onto the base machine by putting the front in first and then lowering the back into place. Install the recovery drain cap and hang back into place.
11. When finished for the day, prop recovery lid open to allow tank to dry and to decrease odors. Drain any extra clean solution and prop open the solution fill lid.
12. Always store the machine with the deck lifted up on the automatic kickstand.
13. If continuing to clean, replace recovery lid and fill solution tank. (See Filling Solution Tank section)



### Emptying Solution Tank

To drain extra solution from tank, disconnect the solution drain hose by sliding down the sleeve of the yellow fitting to release the latch. Then pull the fitting and hose down off of the tank mounting barb. When reinstalling, fully engage the yellow fitting over the barb on the tank until you hear it click.

## Accessory Tool Connection and Use



*NOTE: Use only manufacturer supplied accessory tools. See Optional Accessories section.*

1. Spin the deck 180° so that the vacuum shoe is at the front of the machine.
2. To connect solution hose pull back collar and insert over machine mounted fitting, then release collar to lock into place. Solution connection can remain connected at all times.
3. Disconnect vacuum hose from the vacuum shoe and connect the hand tool to the vacuum hose connection as shown.
4. Select hand tool position on main rotary control switch.
5. Press the top of the switch to turn solution on.
6. Press the bottom of the switch to turn solution off if only the Vacuum will be used for any extended period of time.
7. Squeeze handle on accessory tool to begin cleaning.

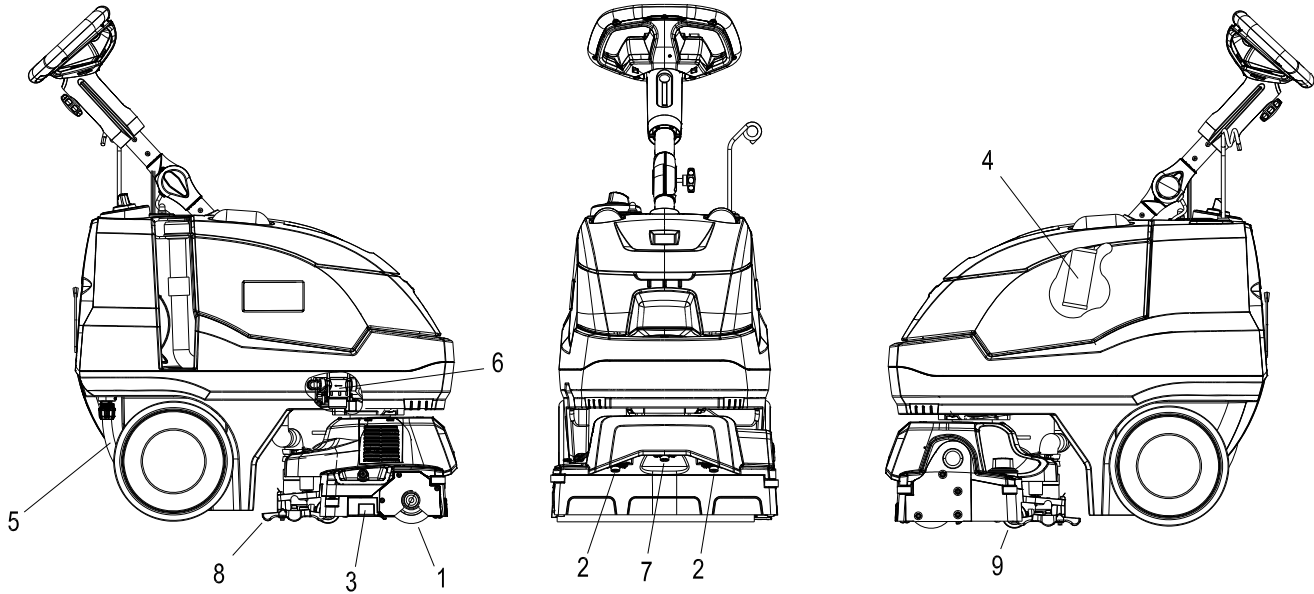




**Service Schedule**

<b>MAINTENANCE</b>	<b>DAILY</b>	<b>WEEKLY</b>	<b>QUARTERLY</b>
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check brushes - should be clean with no lint or strings attached	*		
Clean debris tray behind brush	*		
Clean the underside of the brush deck area	*		
Observe spray pattern	*		
Inspect vac shoe for blockage; Remove and rinse any debris	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Run one gallon of water through solution system at end of day	*		
Clean out recovery tank, clean float screen and check float ball to make sure it moves freely	*		
Clean out solution tank	*		
Clean outside of all tanks and check for damage	*		
Run vac motor for at least one minute to allow motor to dry	*		
Store with recovery dome and solution lid removed to allow the tank to dry	*		
Remove bearing cap from end of brush. Clean bearing and cap.		*	
Check all bearings for noise		*	
Check all gaskets for wear and leakage		*	
Check and clean solution screen		*	
Check brush for wear; ensure bristles are not damaged		*	
Check condition of vac shoe and frame for damage		*	
Remove the bearing end cap off of the brush and clean		*	
Check overall performance of machine		*	
Clean debris from height adjust wheels		*	
Check belts for wear and replace as necessary			*
Check cables for fraying			*
Check pump pressure; observe spray pattern and check with gauge if necessary			*

## Maintenance



### Components

1. Brush
2. Deep Extraction Jets
3. Debris Tray
4. Float Shut-off
5. Solution Drain Hose
6. Solution Strainer
7. Spray Jet - Interim
8. Vacuum Shoe
9. Height Adjust Wheels

### Periodic Maintenance

*NOTE: Before making any adjustments or repairs to the machine, disconnect the power cord from electrical source*

Twice a month, flush a white vinegar solution (One quart vinegar to two gallons of water) or anti-browning solution (mixed as directed) through the extractor. This will prevent build-up of alkaline residue in the system. If spray jets become clogged, remove the spray tips, wash them thoroughly, and blow-dry.

*NOTE: Do not use pins, wire, etc. to clean nozzles as this could destroy spray pattern.*

Periodically inspect all hoses, electrical cables and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or

solution pressure loss. If the cable insulation is broken or frayed, repair or replace it immediately. Do not take chances with electrical fire or shock.

### Daily / Regular Maintenance

1. Empty unused cleaning solution from the solution tank.
2. Flush pumping system with 4 to 7 liters of clean, hot water.
3. After each use, rinse tank with fresh water. Periodically inspect the recovery tank and decontaminate if necessary, using a Hospital Grade Virucide or a 1-10 bleach to water solution. Waste water should be disposed of properly.
4. Check for and remove any lint or debris around vacuum shoe and deck wheels.
5. Check spray jets for full spray pattern.

6. Remove lint and dirt build-up from brush and housing.
7. Check float and shut-off screen and clean as necessary.
8. Remove and clean debris tray.

## Vacuum Shoe and Hose

*NOTE: Vacuum Shoe and hose flush should be done daily after use. Place machine over drainage area before beginning.*

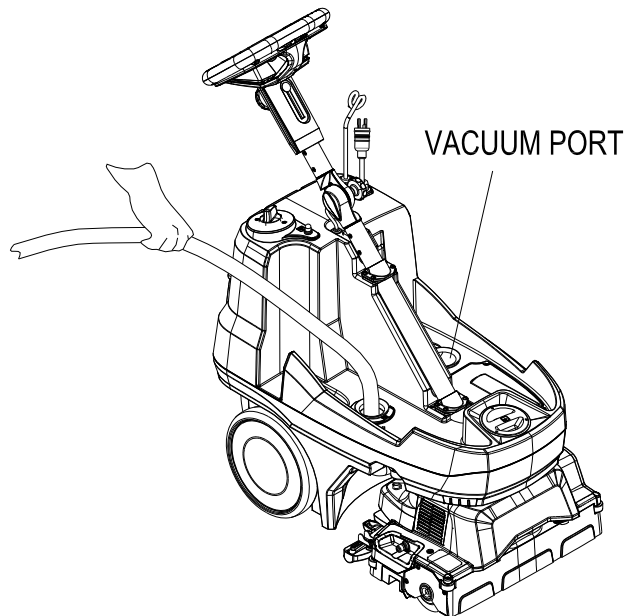
1. Remove recovery tank.
2. Insert water hose into vacuum hose.
3. With water pressure on high, rinse out hose and vacuum shoe. Water should flow freely from vacuum shoe.

### **⚠ CAUTION:**

Do not allow any water into the vacuum port.

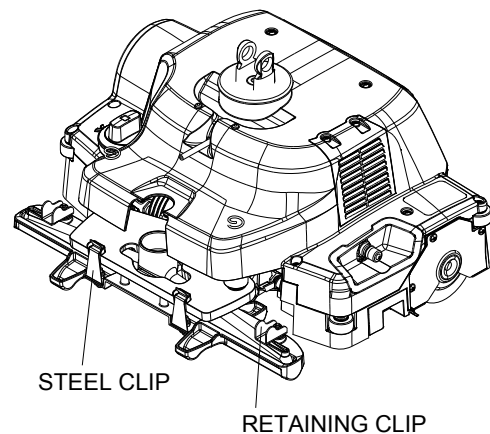
### **⚠ ATTENTION:**

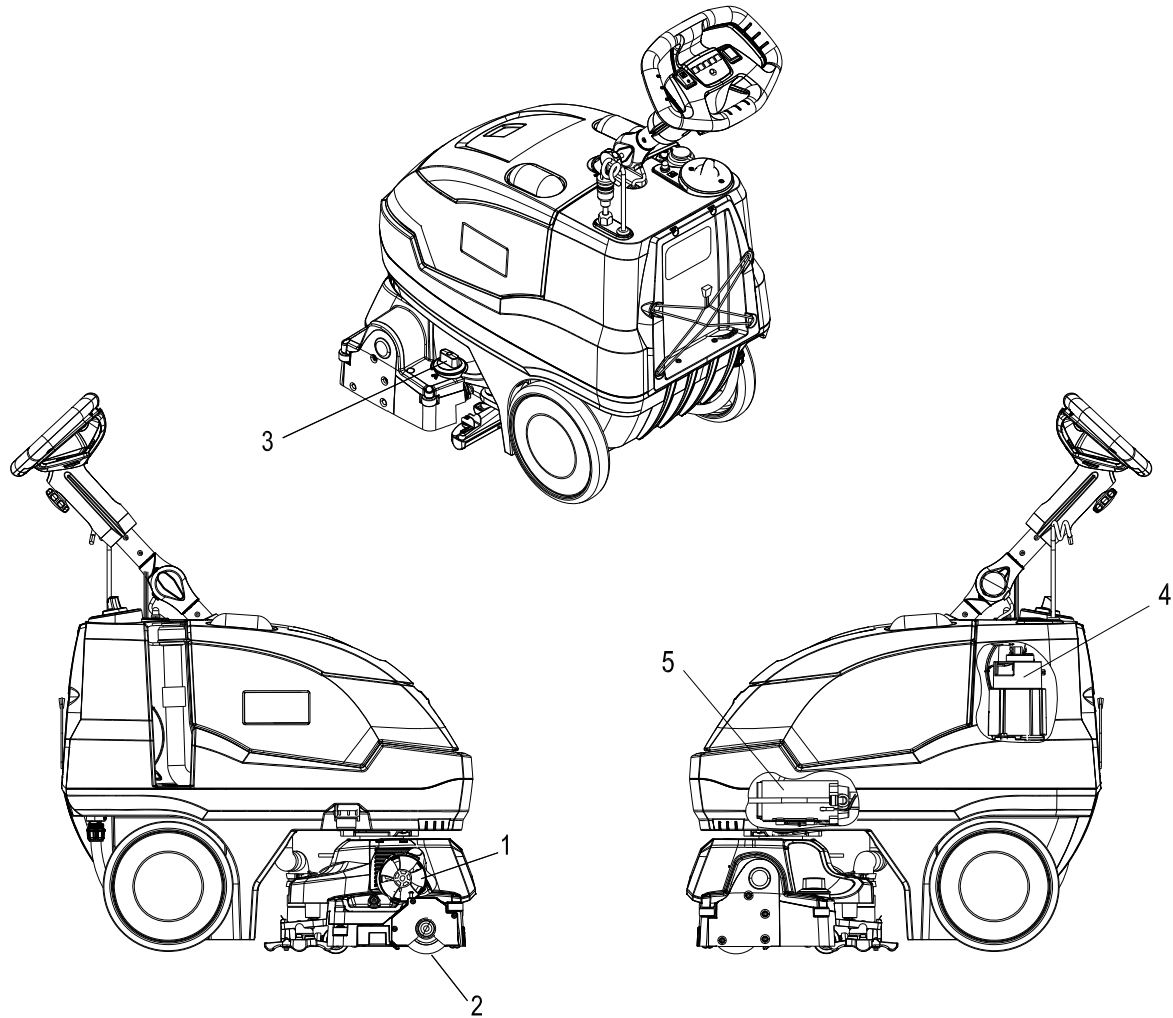
Ne pas laisser d'eau dans l'orifice d'aspiration.



## Vacuum Shoe Cleaning

1. Unplug the power cord and move the machine to a safe level area.
2. To remove the vacuum shoe assembly, spin the deck around 180 degrees so vacuum shoe is at the front of the machine,
3. Remove the recovery tank and set to the side.
4. Tip the machine back and let it rest at approximately a 45 degree angle.
5. Remove the hose from the top of the vacuum shoe.
6. Release (2) steel clips. (as shown below)
7. Rotate the (2) retaining clips (one on each end) to remove clear vacuum shoe for easy cleaning.





### Scrub Deck

1. Scrub Brush Motor
2. Scrub Brush
3. Brush Height Adjustment
4. Vacuum Motor
5. Solution Pump

### **⚠ WARNING:**

Only qualified maintenance personnel are to perform the following repairs.

### **⚠ AVERTISSEMENT:**

Seul le personnel d'entretien qualifié peut effectuer des réparations.

### Scrub Head Maintenance

The cylindrical scrub head is designed to scrub chemicals into the carpet and propel the machine.

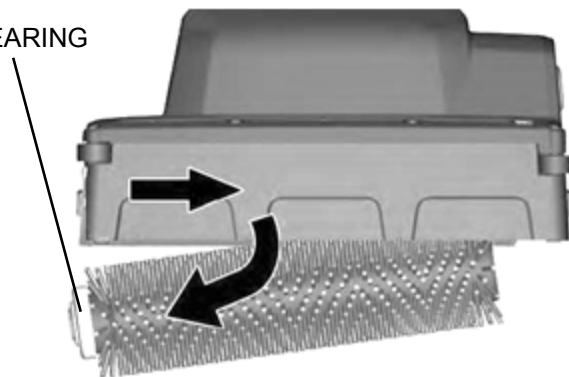
The Scrub brush should be replaced when the brush is no longer able to keep the front of the deck from touching the ground.

### Scrub Brush Removal

The scrub brush is removed from the right side of the machine.

1. Disconnect all power.
2. Drain recovery tank.
3. Tip the machine back.
4. Push in on the brush end cap and then downward.
5. The brush assembly and end cap should drop down. Then pull the brush down far enough to clear the bottom of the housing.

END CAP &  
BEARING



6. Pull brush out with a rocking motion to free brush from drive hub.
7. Check brush roller for wear, and replace when the brush is no longer able to keep the front of the deck from touching the ground.
8. Check to see if the end cap and bearing spin freely and smoothly. Clean and replace if necessary.

### Scrub Brush Replacement

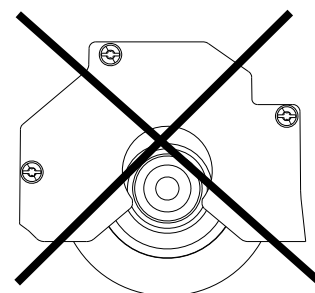
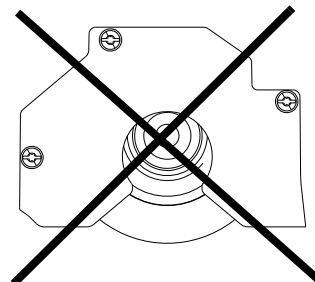
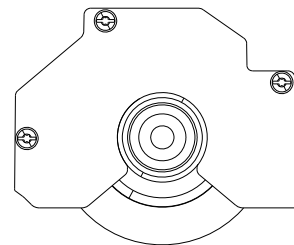
**! WARNING:**

Only use the brush provided with the appliance or those specified in the instructions manual. The use of other brushes may impair safety.

**! AVERTISSEMENT:**

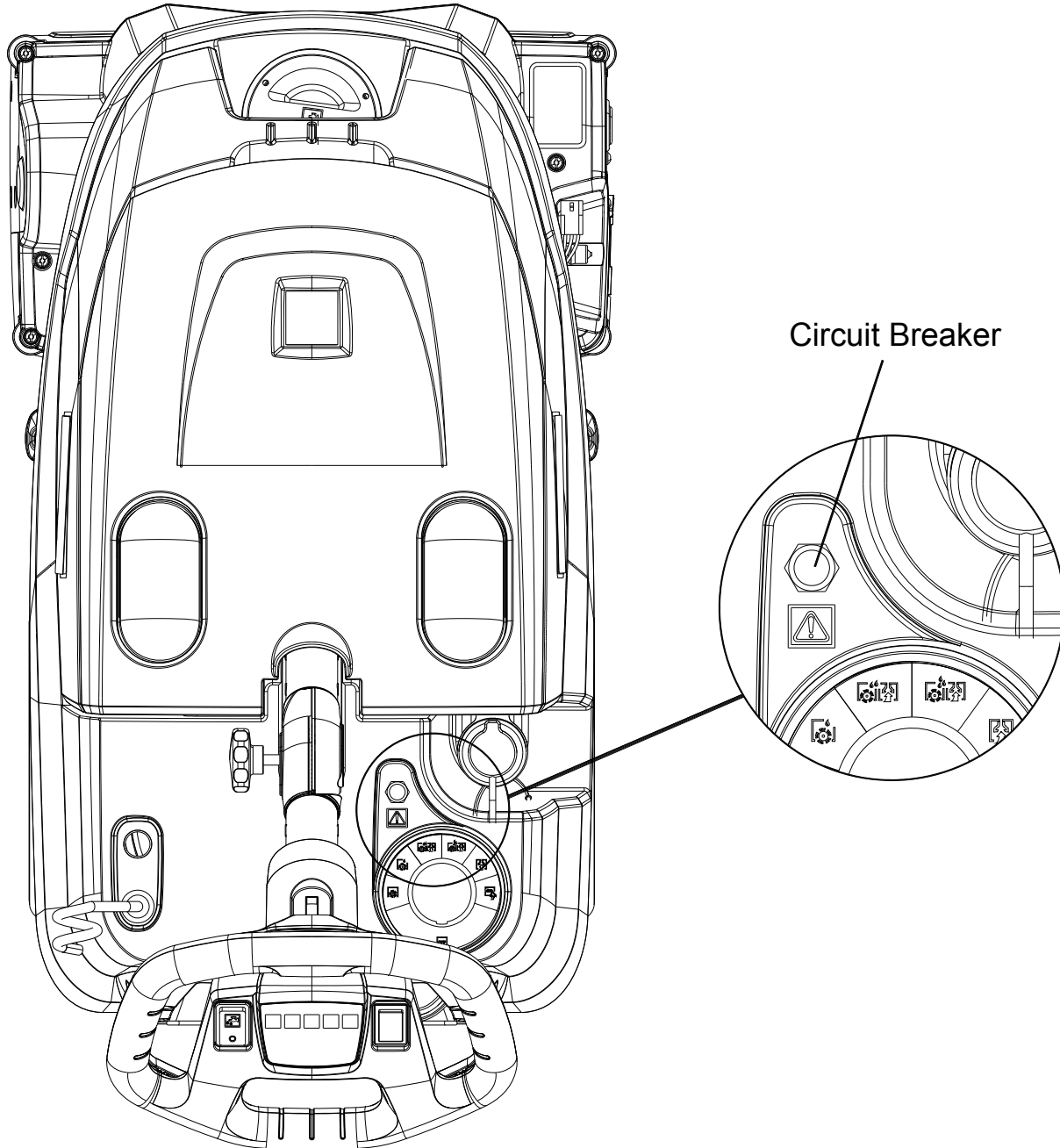
Utilisez uniquement la brosse fournie avec l'appareil ou celles spécifiées dans le manuel d'instructions. L'utilisation d'autres brosses pourrait compromettre la sécurité.

1. Lift the drive side of the brush and push it onto drive hub until a positive stop is felt. The brush cannot be installed until the brush is fully seated on the drive hub.
2. Slide brush up into the retaining clip until it clicks in place.
3. Ensure the end cap is aligned with its mounting plate.



**Circuit Protection**

Circuit breakers interrupt the flow of power in the event of an electrical overload. When a circuit breaker is tripped, reset it by pressing the button. If a circuit breaker continues to trip, contact your service representative.



**Troubleshooting**

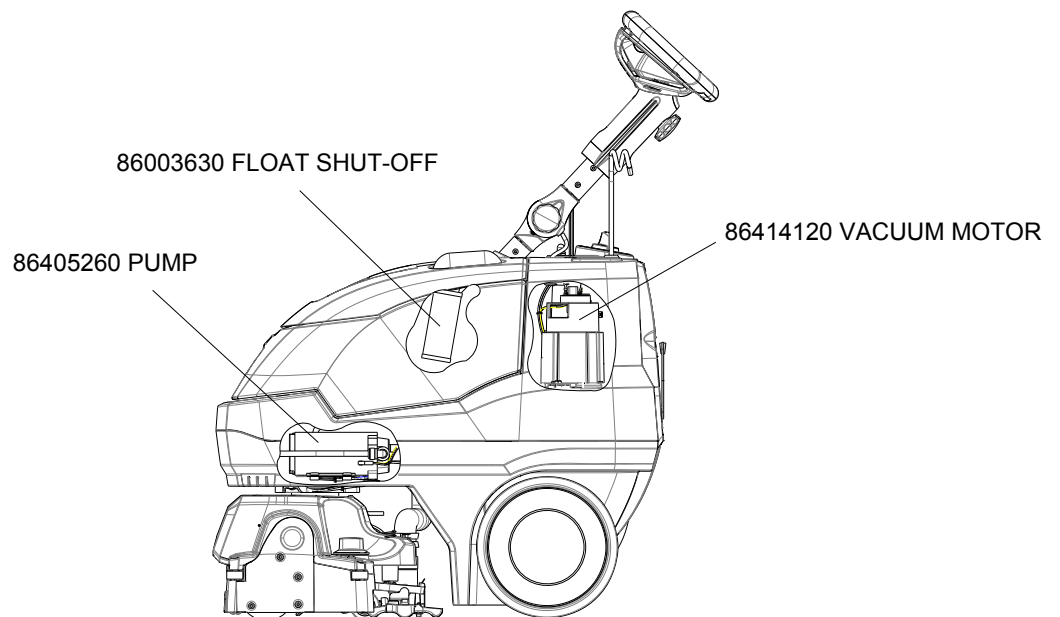
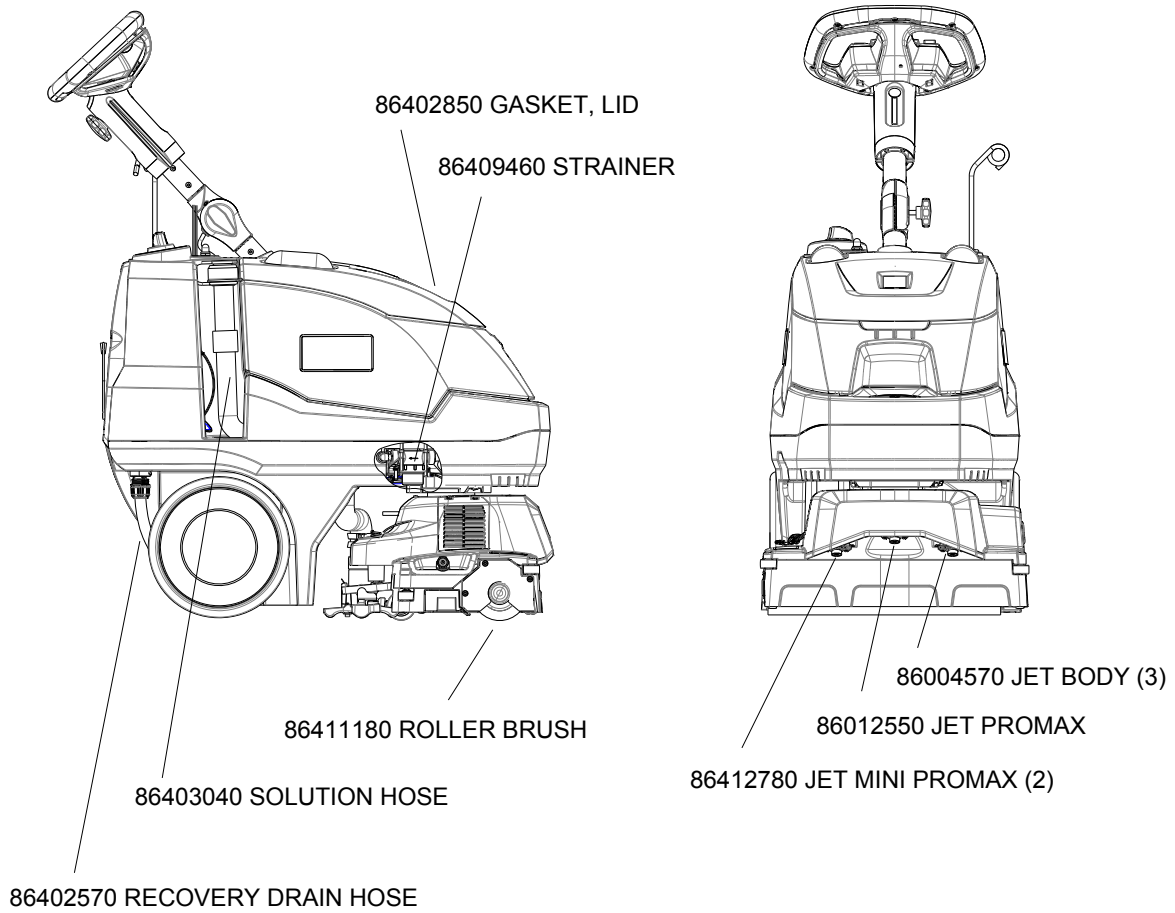
<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
No power, nothing runs, no green light on power icon with switch on.	Cord is not plugged in	Plug in cord.
	Circuit breaker tripped on machine.	Reset breaker.
	Circuit breaker tripped in building.	Reset breaker.
	Faulty switch.	Call for service.
	Faulty power cord or pigtail.	Call for service.
Vacuum motor will not run, red light on vacuum icon.	Recovery tank full	Empty tank. Clean float screen.
	Faulty main vacuum switch.	Call for service.
	Loose wiring.	Call for service.
	Faulty vac motor.	Call for service.
Vacuum motor runs but suction is poor.	Debris lodged in vac shoe.	Remove debris from vac shoe.
	Dome or lid gasket defective or missing.	Replace as necessary.
	Vacuum hose cracked or hose cuff loose.	Replace or repair as necessary.
	Recovery tank full / float ball stuck in the up position.	Turn off vac motor. Drain and rinse recovery tank. Clean float screen.
Poor or no water flow (Carpet Is streaky)	Jets clogged or missing.	Clean using a vinegar /water solution or replace.
	Solution filter clogged.	Clean solution filter.
	Faulty solenoid.	Call for service.
Brush does not spin, No brush light on brush icon.	Main switch off or in hand tool mode.	Turn main switch to machine mode.
	Brush belt broken.	Call for service.
	Faulty brush motor.	Call for service.
Brush light blinks orange.	Brush motor power is exceeding the normal operating limit.	Reduce brush motor load by adjusting deck height to lower number setting with deck height knob.
		Check for worn brush.
Brush light turns solid red.	Brush motor does not have any load.	Check for missing brush.
Machine stops working and brush light blinks red 2 times.	Control board is overheating.	Check control board heat sink for debris.
		Check function of control board cooling fan.
		Reduce brush motor load by adjusting deck height to lower number setting with deck height knob.
Machine stops working and brush light blinks red 3 times.	Brush motor has stalled.	Remove brush and remove entanglement
		Remove all impediments from the path of the machine.

## Maintenance

### Troubleshooting

PROBLEM	CAUSE	SOLUTION
Machine stops working and brush light blinks red 5 times	Brush motor is overheating	Allow brush motor to cool and reduce brush motor load by adjusting deck height to lower number setting with deck height knob.
Machine stops working and brush light blinks red 6 times	Brush motor temperature sensor is disconnected.	Call for service.
	Brush motor is still cooling from and overheat condition	Allow brush motor to cool and reduce brush motor load by adjusting deck height to lower number setting with deck height knob.
Machine stops working and vacuum light blinks red 2 times	Vacuum has stalled	Check vacuum motor for debris.
Machine stops working and vacuum light blinks red 4 times	Vacuum motor is working above recommended range.	Check vacuum motor for debris.







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