

OPERATION MANUAL



POWER CLEAN 1000

CARPET EXTRACTOR

Item Code 19381
Edition 11 02 14
Photo updated on 2014-11

HOW TO USE THIS MANUAL

This manual contains the following sections:

- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

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	_____
SALES REPRESENTATIVE #	_____
DEALER NAME	_____
OPERATIONS GUIDE NUMBER	_____
PUBLISHED	_____

The model and serial number of your machine is on the bottom back-end of the machine.

The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards is identified that could result in product or 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 to keep the machine and its components in good working condition.

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **SERIAL NO. FROM** – column indicates the first machine the part number is applicable to. When the machine design has changed, this column will indicate serial number of applicable machine. The main illustration shows the most current design of the machine. The boxed illustrations show older designs. If column has an asterisk (*), call manufacturer for serial number.
- **NOTES** – column for information not noted by the other columns.

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.

MACHINE DATA LOG/OVERVIEW

MODEL	_____
DATE OF PURCHASE	_____
SERIAL NUMBER	_____
SALES REPRESENTATIVE #	_____
DEALER NAME	_____
OPERATIONS GUIDE NUMBER	_____
PUBLISHED	_____

YOUR DEALER	
Name:	_____

Address:	_____

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.



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

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

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

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 operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

This machine **is not** suitable for picking up hazardous dust.

Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.

This machine is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices for more than normal housekeeping purposes.

Maintenance and repairs **must be done** by qualified personnel.

During operation, attention shall be paid to other persons, especially children.

When leaving unattended, secure against unintentional movement.

The machine shall only be operated by instructed and authorized persons.

When leaving unattended, switch off or lock the main power switch to prevent unauthorized use.

Do not handle the plug or machine with wet hands.

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

Do not use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.

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

Do not pull/run machine over cord. **Keep** cord away from heated surfaces.

Connect to a **properly** grounded outlet. See Grounding Instructions.

SAVE THESE INSTRUCTIONS

HAZARD INTENSITY LEVEL

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

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

CAUTION

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.

GROUNDING INSTRUCTIONS

THIS PRODUCT IS FOR COMMERCIAL USE ONLY.

ELECTRICAL:

In the USA this machine operates on a standard 15 amp 115V, 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:

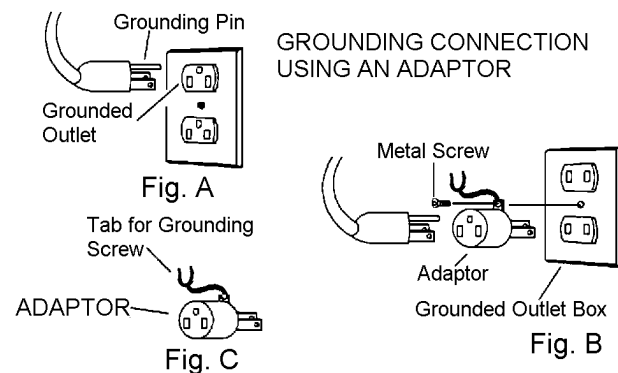
If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine, and must be limited to 50 feet (15.5m) in length.

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.

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 adaptor that looks like the adaptor 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 adaptor 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 adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.



Note: Adaptors are not allowed in Canada.

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.

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TECHNICAL SPECIFICATIONS

POWER TYPE

ELECTRICAL: 115 V, 15 A, 60 HZ

ELECTRIC VACUUM MOTOR: (1) –3 stage, 1 hp, 99 cfm (2.80 cubic meters/min.) Waterlift –117" (297cm)

BRUSH: (1) 18" (45.7 cm.)

SOLUTION PUMP: 100 PSI, diaphragm style, internal bypass

SOLUTION CAPACITY: 10 gallons (37.8 ltr)

RECOVERY CAPACITY: 10 gallons (37.8 ltr)

BRUSH SPEED: 1000 rpm

GENERAL DIMENSIONS/WEIGHT

Vacuum shoe: 20" (51 cm) cast aluminum with spring loaded down pressure

WHEELS: (2) 10" dia. (25 cm) wheels by 2"

WEIGHT: 94 lbs. (43 kg)

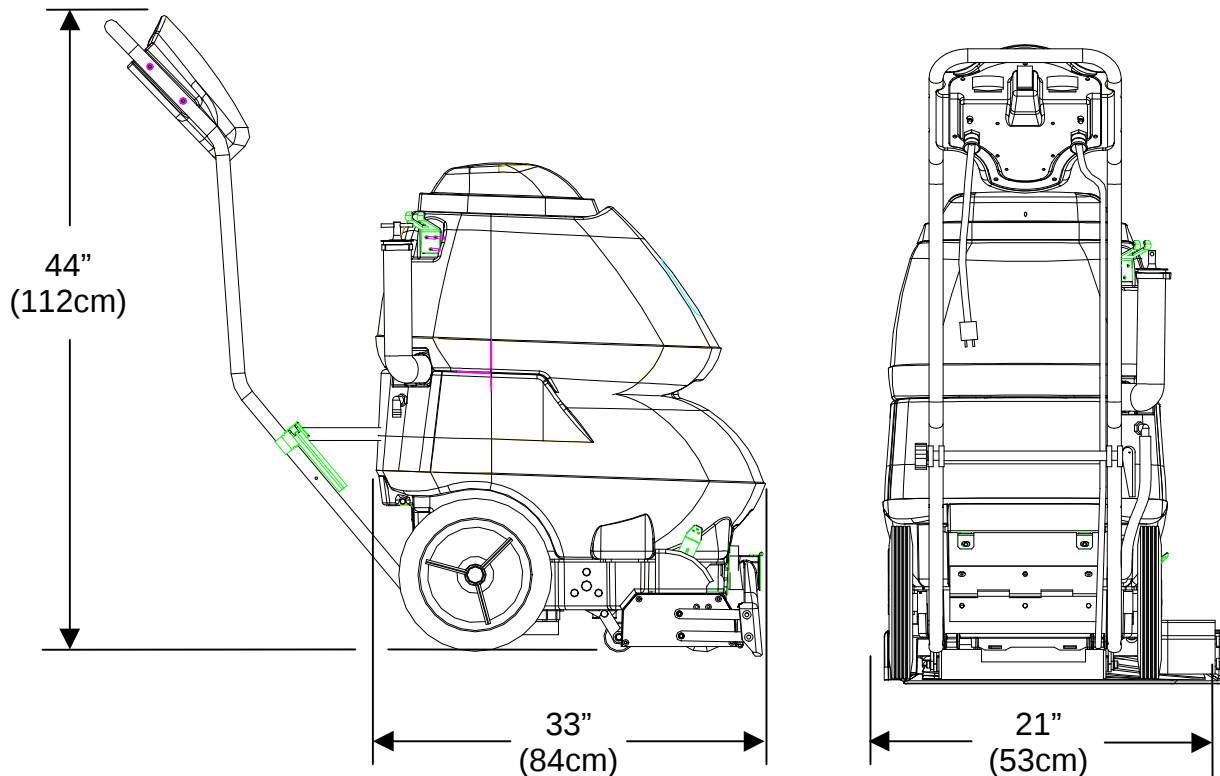
LENGTH: 33" (84 cm)

HEIGHT: 44" (112 cm)

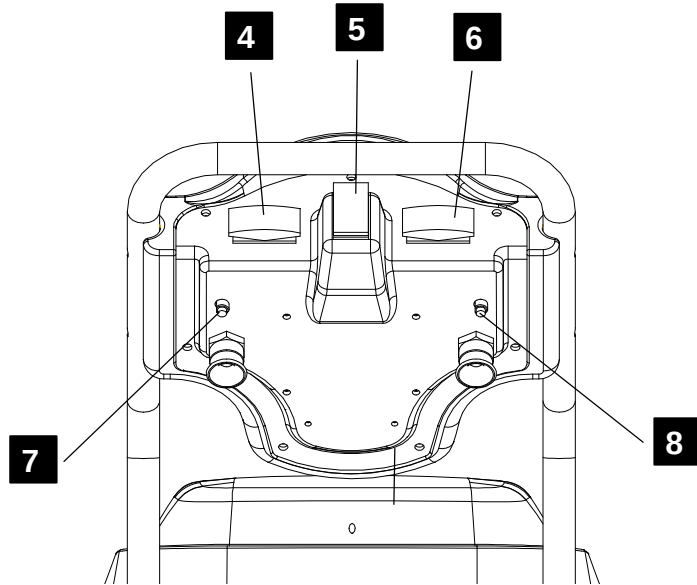
WIDTH: 21" (53 cm)

SOLUTION SPRAY: 2 quick change jets.

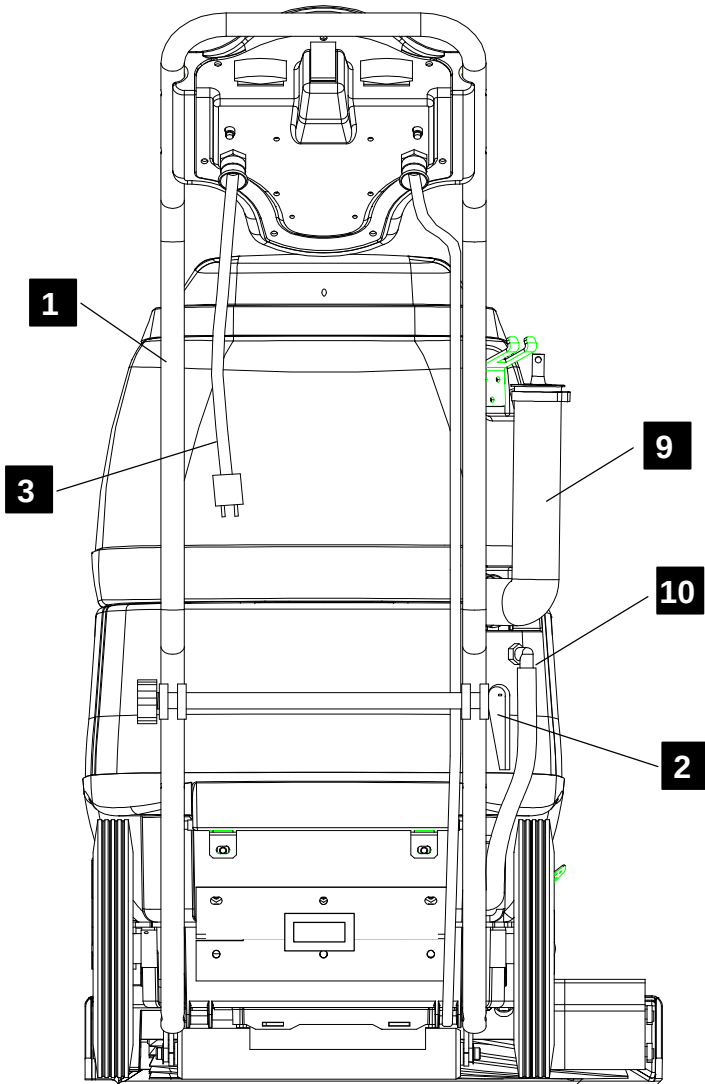
POWER CABLE: 50' (12.7 m) (14 gauge)



CONTROLS/COMPONENT LOCATIONS



1. **Main Handle.** Used to pull and maneuver machine.
2. **Handle Adjustment.** Used to adjust height of handle.
3. **Electrical Cord.**
4. **Pump Switch.** Turns on pump and enables spray.
5. **Brush/Spray Switch.** Turns on brush motor and activates electro-valve to dispense solution to floor through jets. Intermittent, off, and continuous settings.



6. **Vacuum Motor Switch.** Turns on vacuum motor.
7. **Brush Motor Circuit Breaker.** 6 amp. Breaker protecting brush motor.
8. **Vacuum Motor Circuit Breaker.** 15 amp. Breaker protecting vacuum motor.
9. **Recovery Dump Hose.** Facilitates draining dirty cleaning solution.
10. **Solution Dump Hose.** Facilitates draining excess cleaning solution from solution tank.

CONTROLS/COMPONENT LOCATIONS

- 1. Solution Accessory Tool Hookup.** Used for various auxiliary cleaning tools.

- 2. Vacuum Hose Door.** Used to connect various auxiliary 1 ½ inch cleaning tool vacuum hoses.

- 3. Brush Height Adjustment.** Used to regulate brush height from storage position to various carpet heights.

- 4. Recovery Tank.** Used to collect dirty cleaning solution.

- 5. Solution Tank.** Used to hold cleaning solution.

- 6. Recovery Tank Dome.**

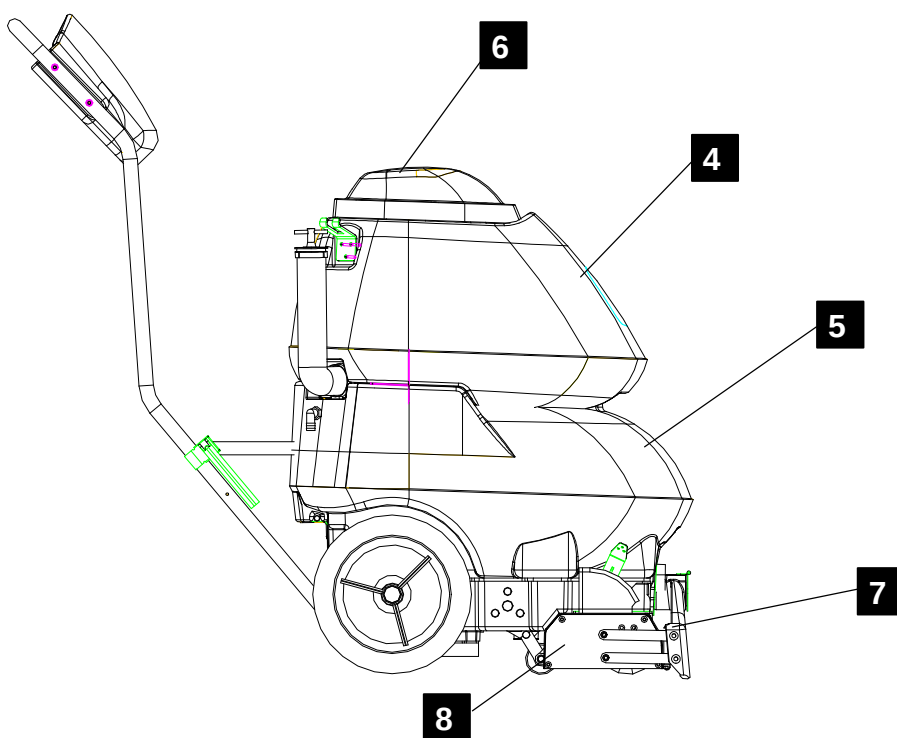
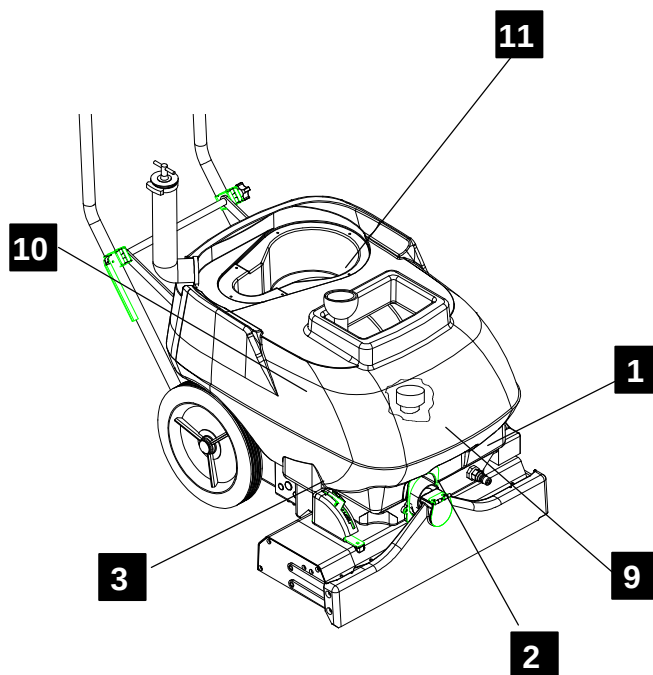
- 7. Vacuum Shoe.**

- 8. Brush Housing.**

- 9. Front Lifting Handle.**

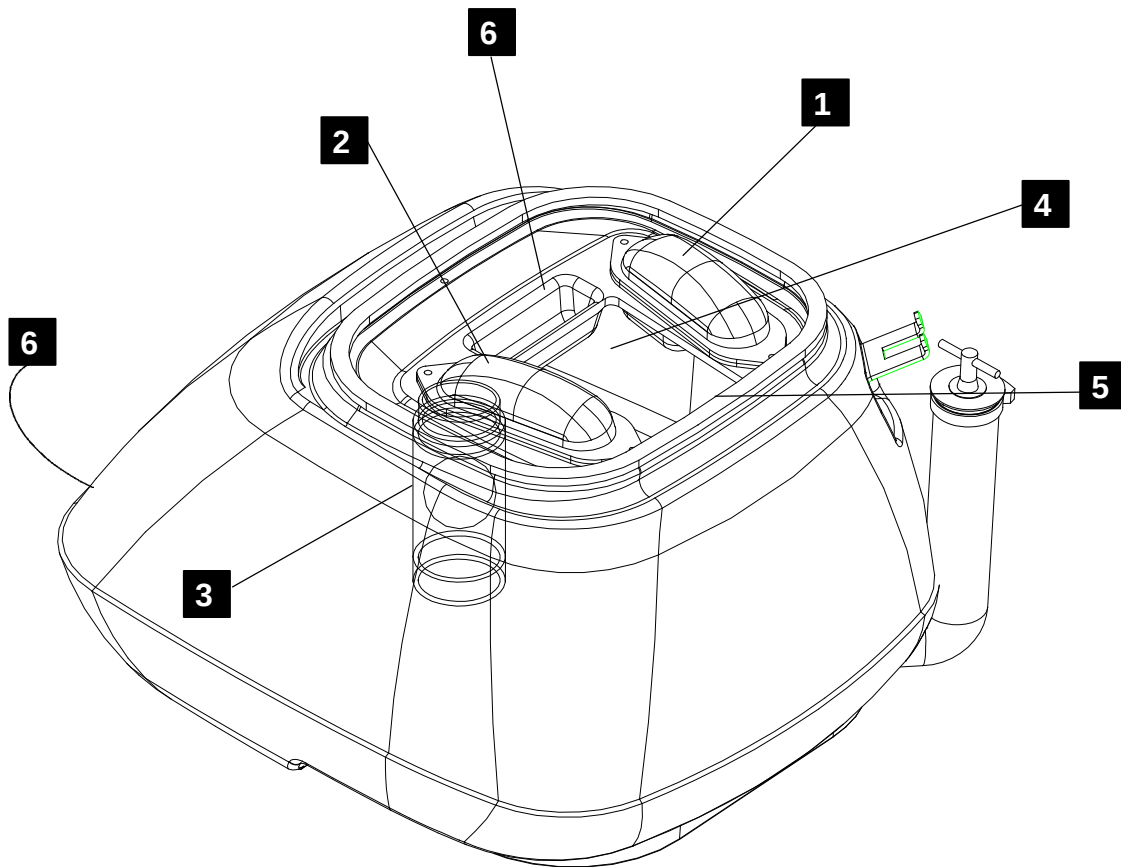
- 10. Cleaning Solution Filter.**

- 11. Solution Tank Fill Hose.**

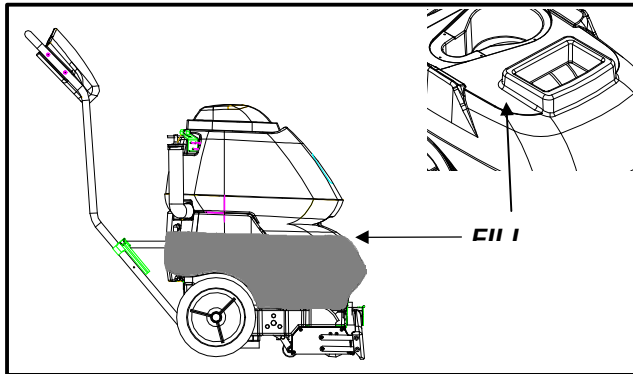
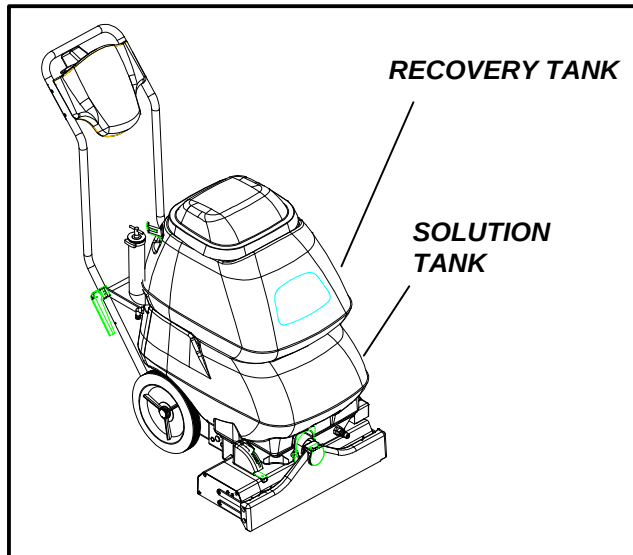


CONTROLS/COMPONENT LOCATIONS

1. Solution Intake Cover
2. Vacuum Intake Cover
3. Float Shut-Off
4. Clean-Out Opening
5. Pour Spout
6. Lift Handle



FILLING OPERATIONS



FILLING THE FB10

NOTE: Use clean bucket of water to fill solution tank

Do not put defoamer, solvents, spotter or prespray chemicals in the solution tank.

Do not allow water to spill into vacuum motor inlet. Dry spillage from top of solution tank before replacing recovery tank.

CHEMICALS

Suitable Chemicals

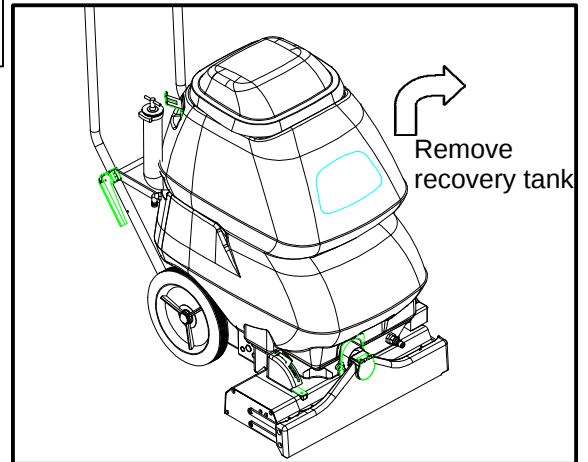
Alkalis
Detergents
Hydroxides
Soaps
Vinegar

Non-Compatible Chemicals

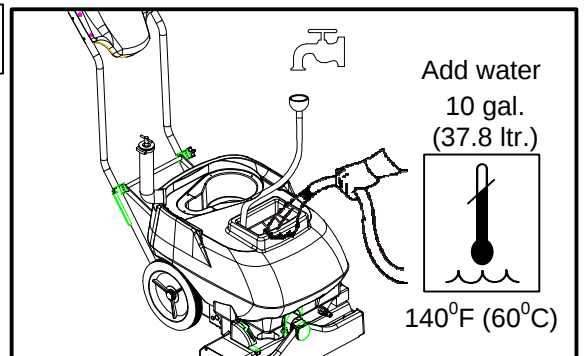
Aldehydes
Aromatic Hydrocarbons
SP Butyls
Carbon Tetrachloride
Clorox*
Chlorinated Bleaches
Chlorinated Hydrocarbons
Lysol*
Methyl Ethel Ketone (MEK)
Perchlorethylene (perc)
Phenolics
Trichlorethylene
D-Limonen

* Product Trademark Names

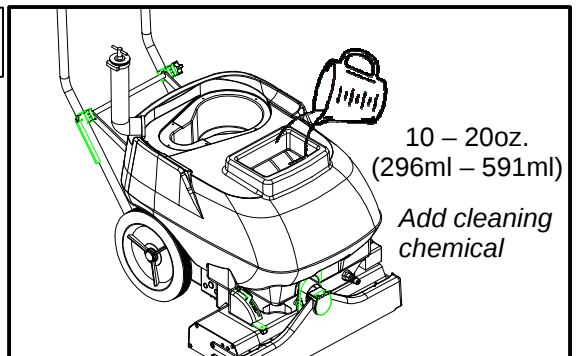
STEP
1



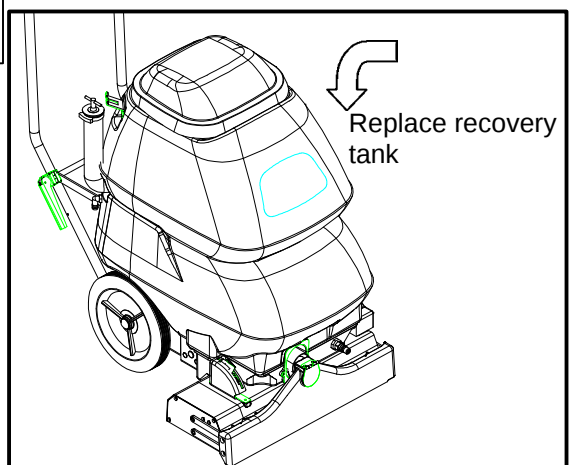
STEP
2



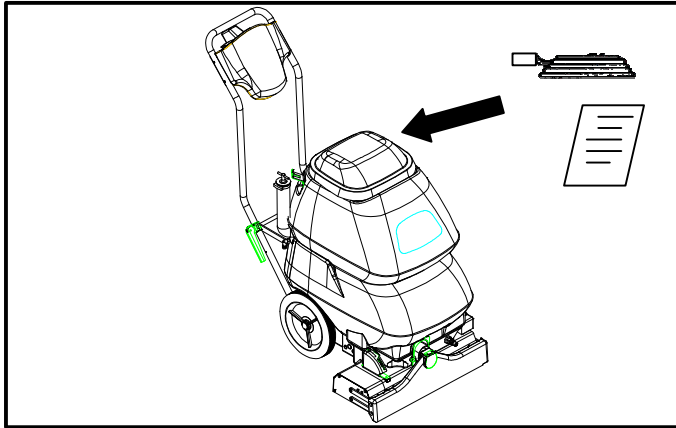
STEP
3



STEP
4

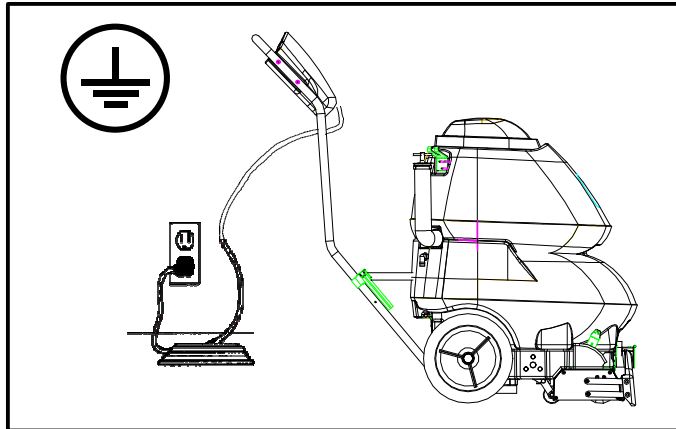


OPERATIONS



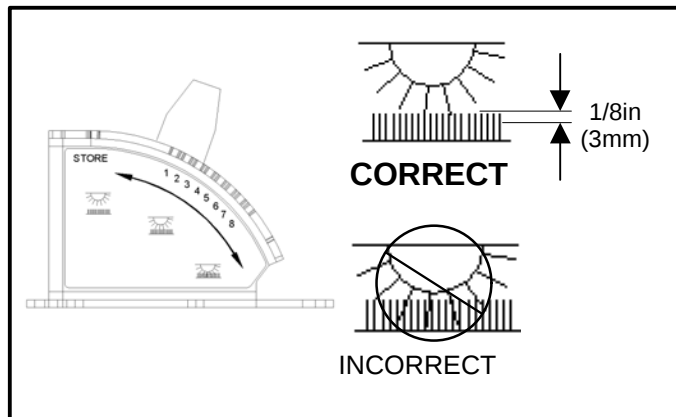
STEP 1

Remove electrical cord and literature from recovery tank. Fill solution tank (see filling instructions page 7).



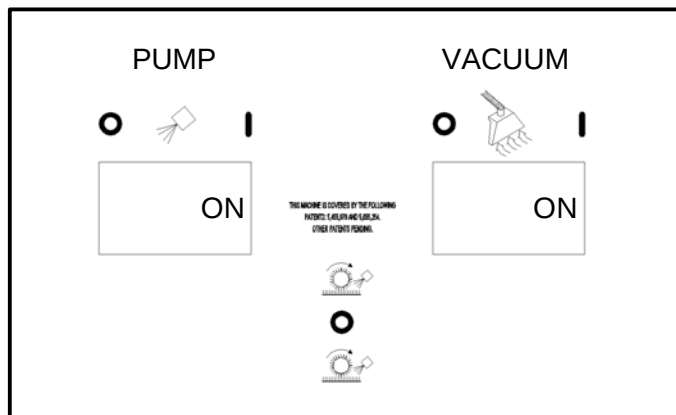
STEP 2

Plug cord into grounded outlet. *Note: Be sure dome is seated on recovery tank, and float shut-off is installed correctly.*



STEP 3

Adjust brush to proper setting. *Note: For good operation the brush must skim the carpet. If circuit breaker trips raise brush to prevent damage to motor or carpet.*



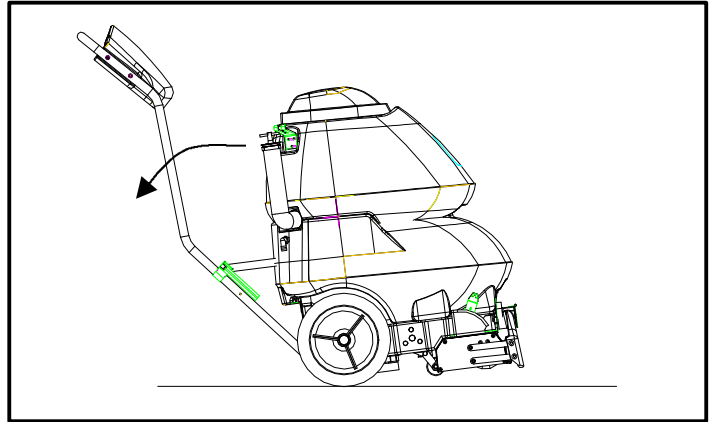
STEP 4

Turn on both Vacuum and Pump motor switches ("ON"="I").

OPERATIONS

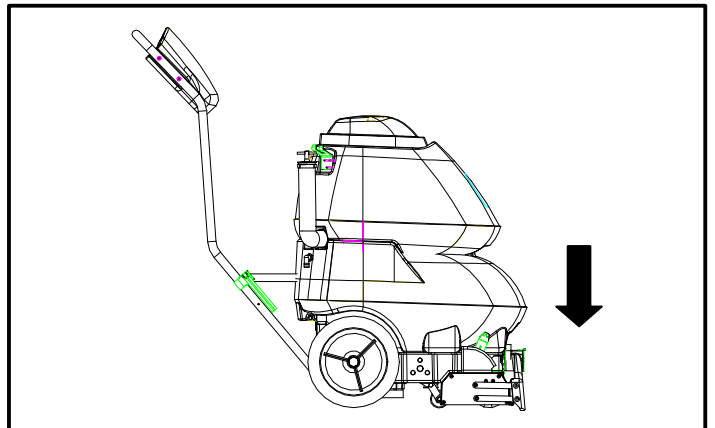
Adjust handle to comfortable operating position. Tip machine back by main handle to move to starting point.

STEP
5



Lower machine to floor.

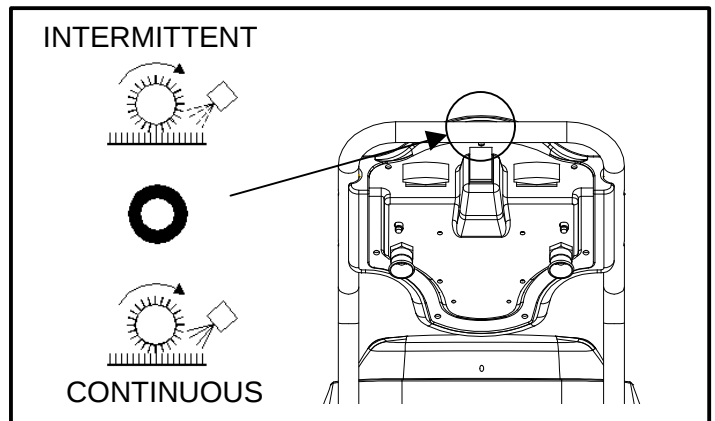
STEP
6



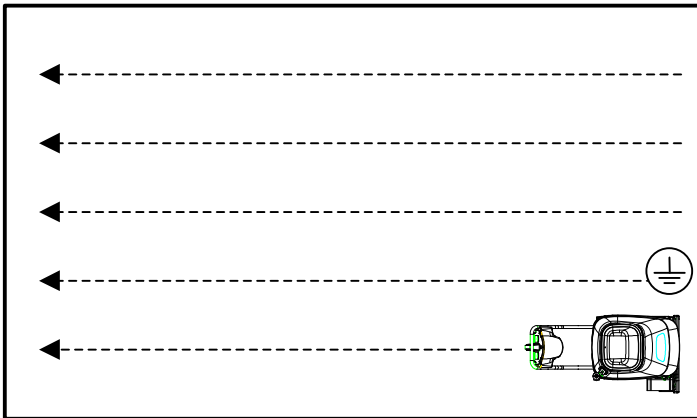
Select intermittent or continuous switch setting to turn on brush and start solution spray.

The intermittent setting requires the operator to hold the switch in the “on” position with the thumb, and is typically used in small areas where short cleaning passes are made. The continuous setting allows the operator to set the switch in the “on” position with one touch, and is typically used in large areas where long cleaning passes are made.

STEP
7

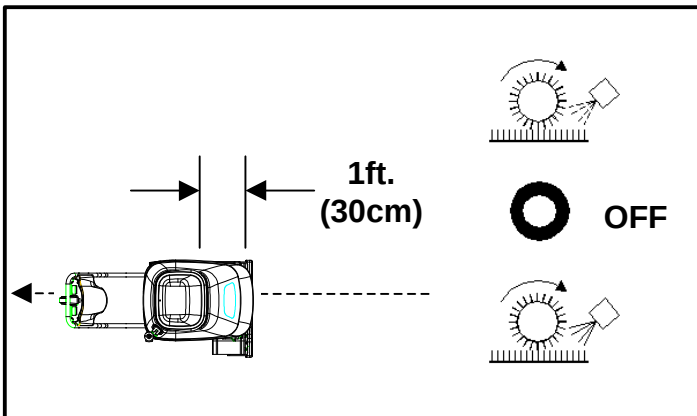


CLEANING PROCEDURE



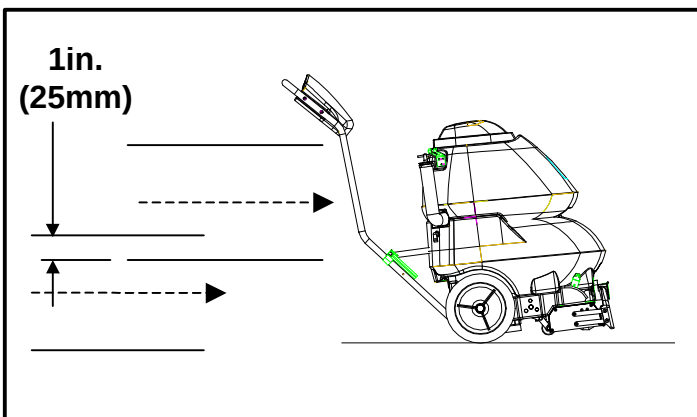
STEP
1

Start at wall closest to power outlet. Pull straight back without pushing down on handle.



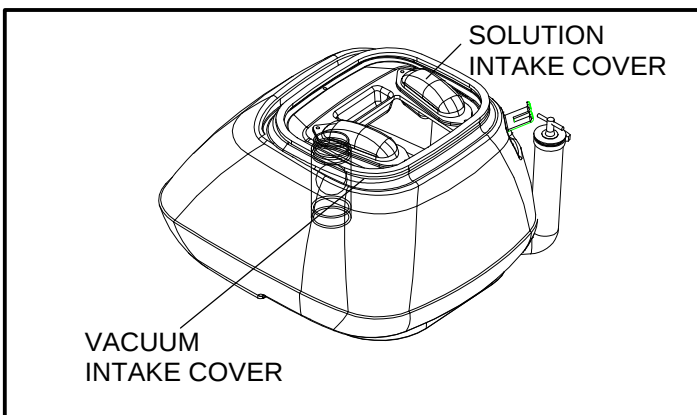
STEP
2

Release intermittent setting or turn off continuous setting on brush/spray switch approximately 1 foot before ending cleaning pass.



STEP
3

Push down on handle to raise vacuum shoe and brush before moving to the next cleaning pass. Overlap brush contact area approximately 1inch.



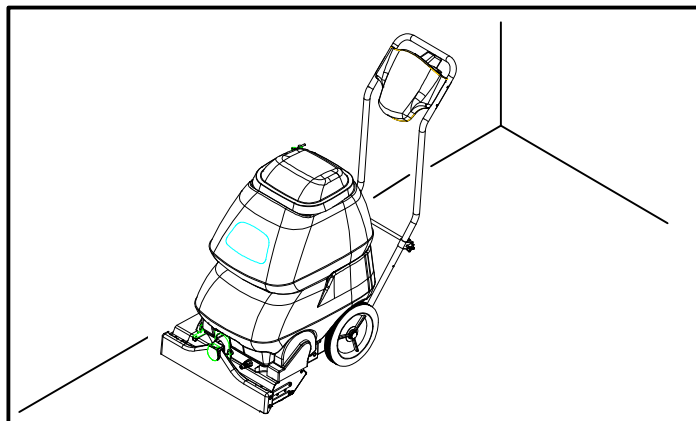
STEP
4

During operation, observe the following: The FB10 is equipped with clear internal covers to facilitate operator viewing of dirty solution and vacuum air flow. During operation, observe the vacuum intake cover. Large amounts 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.

CLEANING PROCEDURE

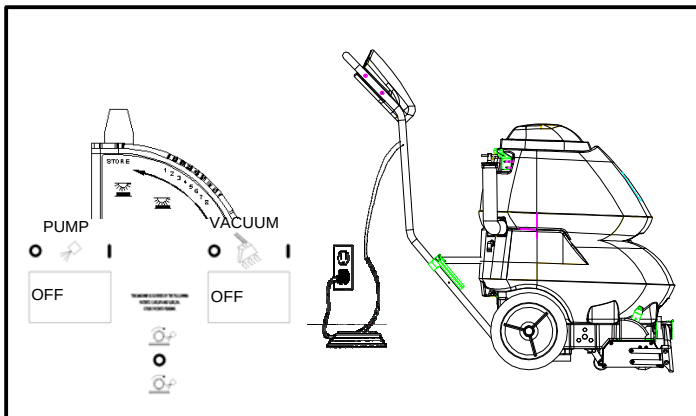
Use right side of machine for cleaning against walls.

STEP
5



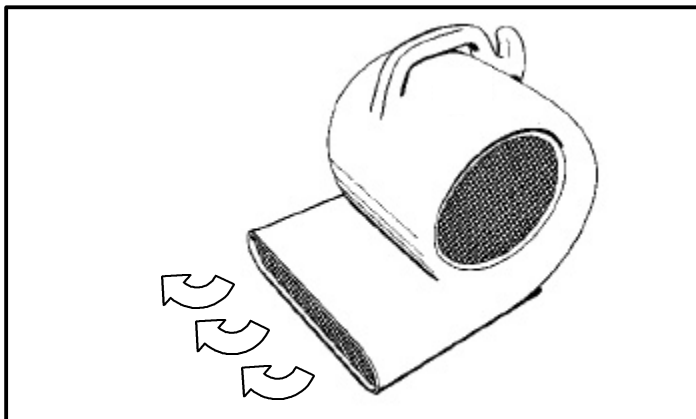
After cleaning, turn off all controls, return brush to storage position and carefully unplug machine.

STEP
6



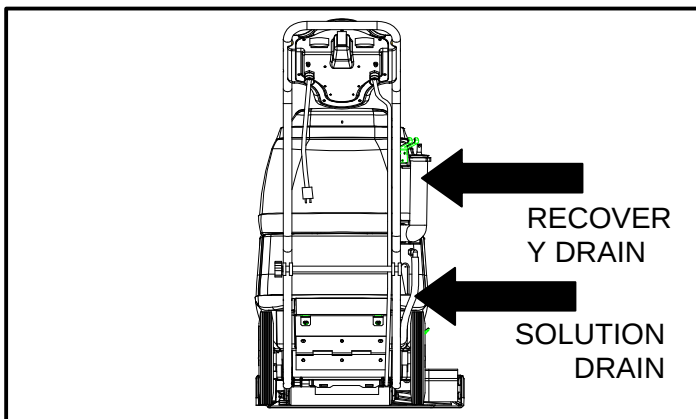
To speed drying, use a Mach™ 3 fan.

STEP
7

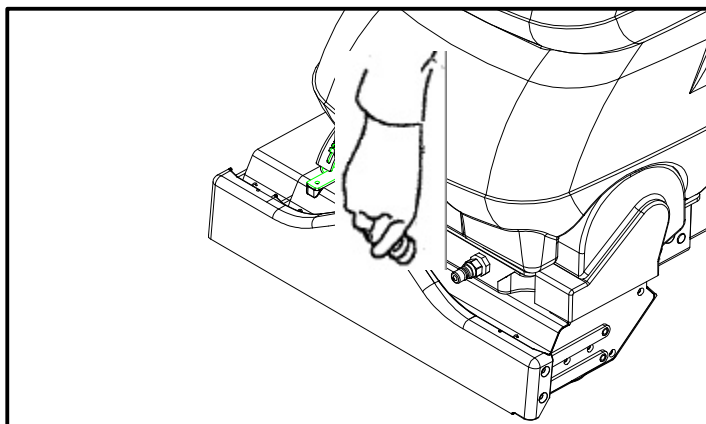


Empty recovery tank by releasing dump hose. Use a hose with cold water to clean out the recovery tank. Also drain solution tank after each use.

STEP
8



ACCESSORY TOOL USAGE

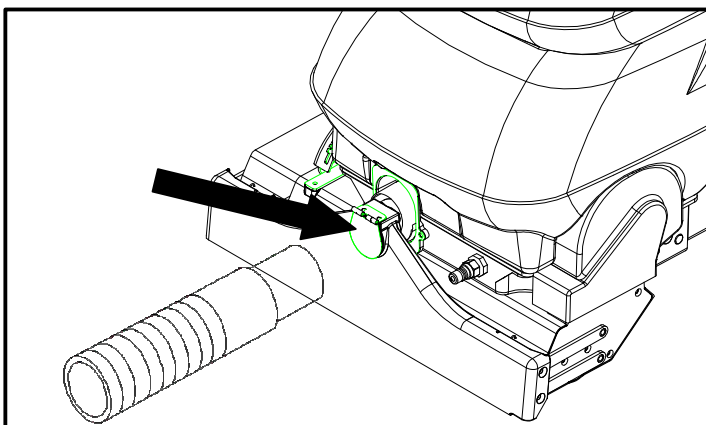


STEP
1

Use only one of the following acceptable accessory tools.

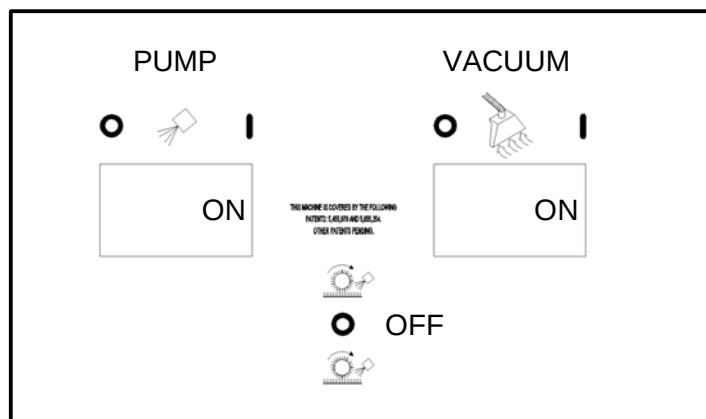
CST DH SW
SW-PRO 39504

Pull back collar and insert over machine mounted fitting, then release collar to lock into place.



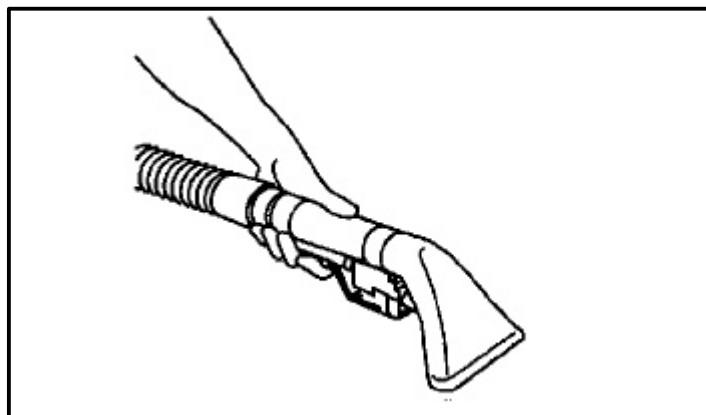
STEP
2

Lift door on front of vacuum shoe and insert 1 1/2 inch hose cuff into hole.



STEP
3

Turn on Pump and Vacuum Switch.
Note: Be sure intermittent/continuous switch is in center (off) position and brush is in storage position.



STEP
4

Squeeze handle on accessory tool to begin cleaning.

MAINTENANCE

PERIODIC MAINTENANCE

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. Don't take chances with electrical fire or shock.

DAILY / REGULAR MAINTENANCE

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

1. Empty unused cleaning solution from the solution tank.
2. Inspect and clean filter screen in solution tank.
3. Flush pumping system with 4 or 7 liters of clean, hot water.
4. 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.

5. Check for and remove any lint or debris around vac shoe.
6. Check spray jets for full spray pattern.
7. Remove lint and dirt build-up from brush and housing.
NOTE: Brush removal.
 - A. To remove brush, grab and pull brush out from end opposite drive belt (operator's right). Remove other end from brush driver.
 - B. To install brush, line up slots in brush core with pin in driver on drive belt side (operator's left) and push brush onto driver. Then snap bearing end (opposite end) of brush into retaining clip.
8. Check cooling air screen (located on frame behind left wheel) for lint or debris.
9. Check float and shut-off screen and clean as necessary.

NOTE: Always store machine with brush in "Store" position.

MAINTENANCE



WARNING:

ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

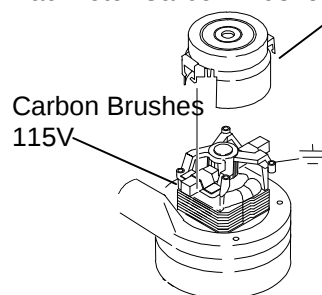
VACUUM MOTOR REPLACEMENT

1. Turn off all switches and unplug machine.
2. Remove recovery tank.
3. Remove the (2) screws that fasten the solution tank to the frame, and tilt tank back to expose the inside of the frame.
4. Locate the vacuum motor wires and disconnect at the connector. Close the solution tank.
5. Remove the (6) screws holding the vacuum motor cover (p/n 27809) to the solution tank.
6. Remove the vacuum motor.
7. Reverse process to install vacuum motor.

SOLUTION PUMP REPLACEMENT

1. Turn off all switches and unplug the machine.
2. Remove recovery tank.
3. Remove the (2) screws that fasten the solution tank to the frame, and tilt tank back to expose the inside of the frame.
4. Remove solution hoses from fittings in pump.
5. Remove the (2) screws that fasten the pump to the frame.
6. Reverse process to install pump.

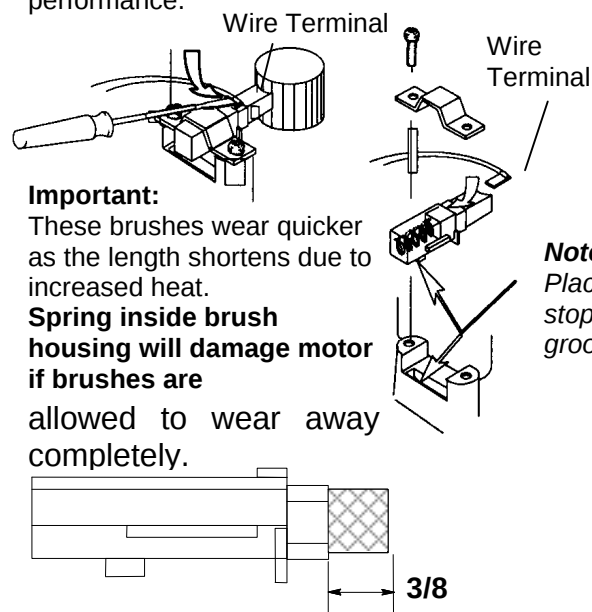
Vac Motor Carbon Brushes Replacement



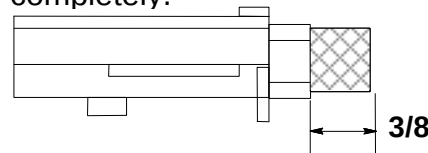
WARNING: The green ground wire must be attached for safe operation. See wiring diagram.

Note: When replacing carbon vac motor brushes loosen wire terminal **BEFORE** removing screws on bracket.

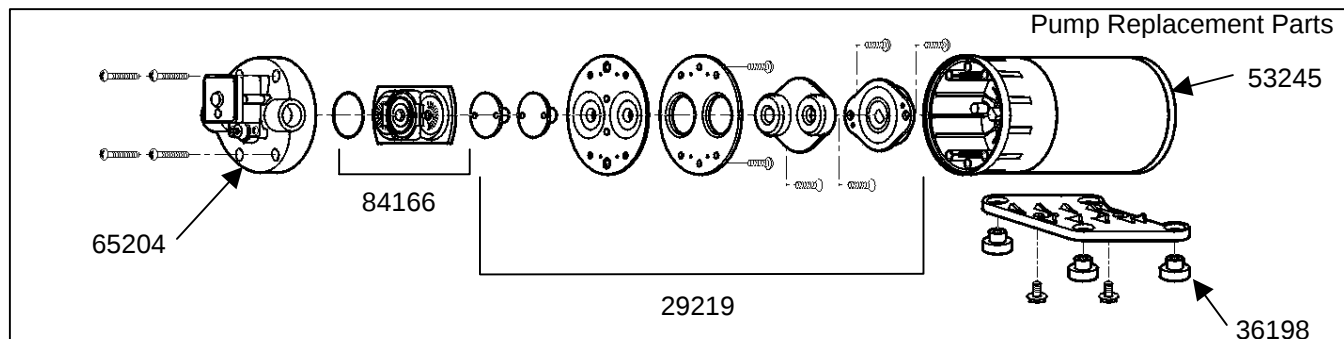
If armature commutator is not concentric, extremely pitted, or grooved the motor will need to be replaced or sent to a qualified service center to restore vac performance.



Important: These brushes wear quicker as the length shortens due to increased heat. **Spring inside brush housing will damage motor if brushes are allowed to wear away completely.**



Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than 3/8" long.



MAINTENANCE



WARNING:

ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

BELT REPLACEMENT

1. Turn off all switches and unplug machine.
2. Remove recovery tank and brush.
3. Remove the (2) screws that fasten the solution tank to the frame, and tilt tank back to expose the inside of the frame.
4. Loosen the (4) screws that hold the brush motor in place and slide motor forward to release tension in belt.
5. Remove the (2) screws that fasten the vacuum shoe links (p/n 05016) to the brush housing.
6. Remove the (3) screws that fasten the side plate (p/n 62759) to the brush housing to remove belt.
NOTE: All components associated with driving the brush will come out with the side plate.
7. Reverse process to install belt.

