



Electronic Service Manuals

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FP8 FiberPRO™ Self Contained Extractor

Operator's Manual and Parts Schematic

Item #87304



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. They are listed in this general order:

- Periodic
- Daily/Regular

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.

TABLE OF CONTENTS

<i>Machine Data Log/Overview.....</i>	<i>1</i>
<i>Table of Contents</i>	<i>2</i>

HOW TO USE THIS MANUAL

<i>How to use this Manual.....</i>	<i>1-1</i>
------------------------------------	------------

SAFETY

<i>Important Safety Instructions</i>	<i>2-1</i>
<i>Hazard Intensity Level.</i>	<i>2-2</i>
<i>Grounding Instructions.....</i>	<i>2-3</i>

OPERATIONS

<i>Technical Specifications.</i>	<i>3-1</i>
<i>Controls/Component Location.....</i>	<i>3-2</i>
<i>Filling Operation.....</i>	<i>3-5</i>
<i>Operations.</i>	<i>3-6</i>
<i>Cleaning Procedure.</i>	<i>3-8</i>
<i>Accessory Tool Usage.</i>	<i>3-10</i>

MAINTENANCE

<i>Periodic Maintenance.</i>	<i>4-1</i>
<i>Daily/ Regular Maintenance.....</i>	<i>4-1</i>
<i>Vacuum Motor Replacement.....</i>	<i>4-2</i>
<i>Solution Pump Replacement.....</i>	<i>4-2</i>
<i>Belt Replacement</i>	<i>4-3</i>
<i>Wiring Diagram.</i>	<i>4-4</i>
<i>Machine Troubleshooting.....</i>	<i>4-5</i>

GROUP PARTS LIST

<i>Frame Assembly.....</i>	<i>5-1</i>
<i>Brush Assembly.....</i>	<i>5-3</i>
<i>Pump Assembly.....</i>	<i>5-5</i>
<i>Vacuum Shoe Assembly.....</i>	<i>5-7</i>
<i>Control Panel Assembly.....</i>	<i>5-9</i>
<i>Solution Tank Assembly.</i>	<i>5-11</i>
<i>Recovery Tank Assembly.</i>	<i>5-13</i>
<i>Suggested Spare Parts/Notes.....</i>	<i>5-15</i>

SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

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

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

This machine is for commercial use.



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 run machine over cord. **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.

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.

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

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.

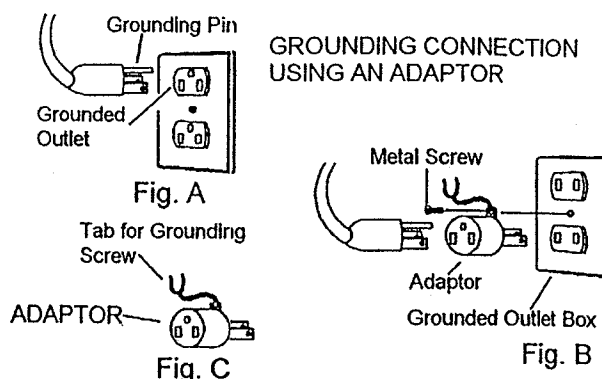
EXTENSION CORDS:

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.

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) 15" (38.1 cm.)

SOLUTION PUMP: 100 PSI, diaphragm style, internal bypass

SOLUTION CAPACITY: 8 gallons (30.3 ltr)

RECOVERY CAPACITY: 8 gallons (30.3 ltr)

BRUSH SPEED: 1000 rpm

GENERAL DIMENSIONS/WEIGHT

Vacuum shoe: 17" (43.18 cm) cast aluminum with spring loaded down pressure

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

WEIGHT: 92 lbs. (42 kg)

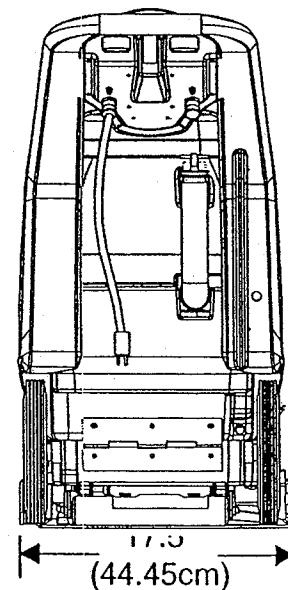
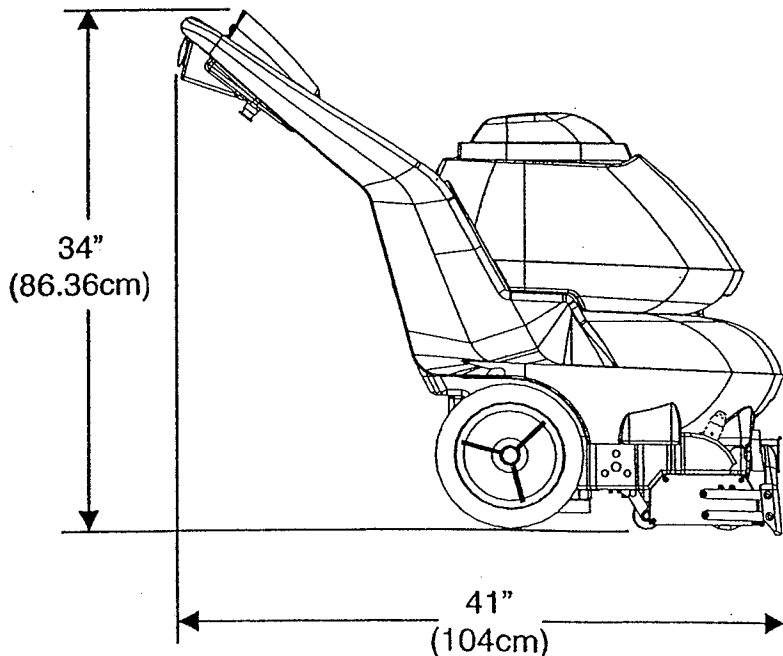
LENGTH: 41" (104 cm)

HEIGHT: 34" (86.36 cm)

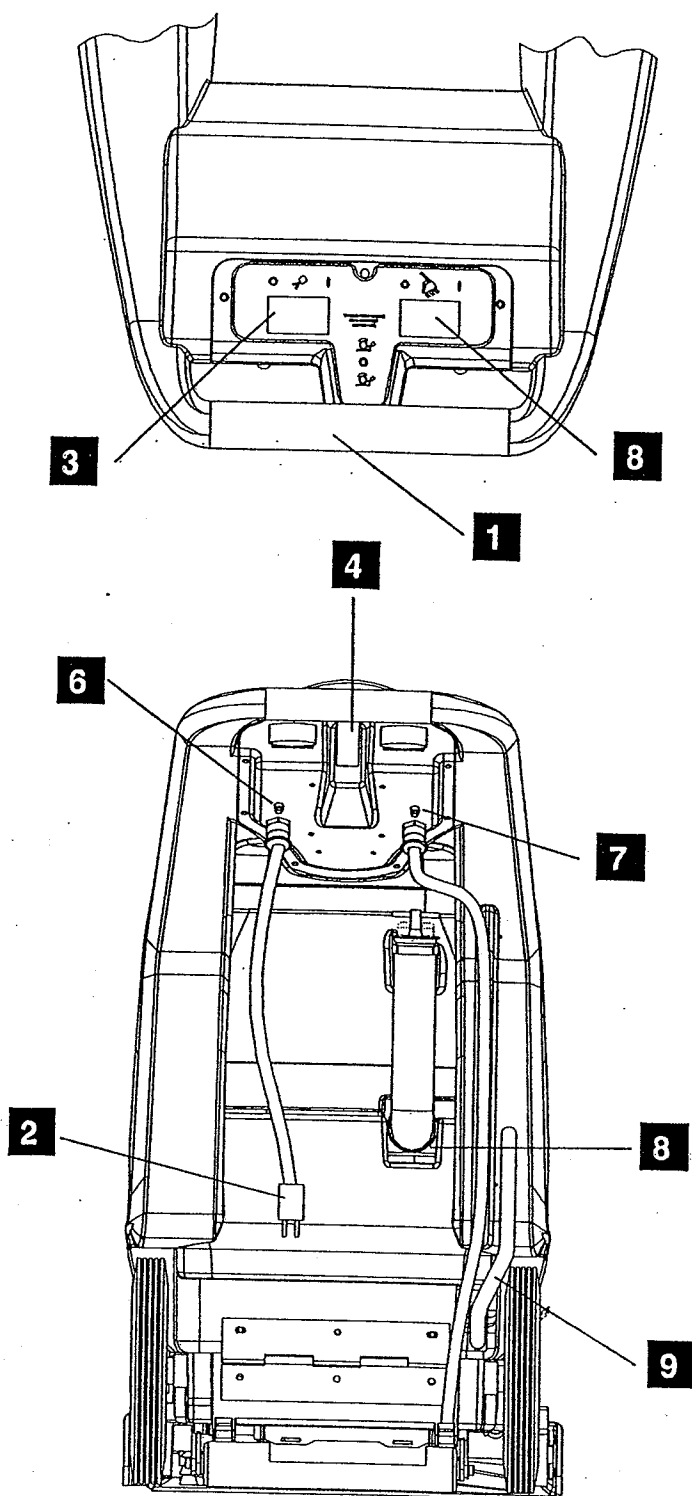
WIDTH: 17.5" (44.45 cm)

SOLUTION SPRAY: 2 quick change jets.

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



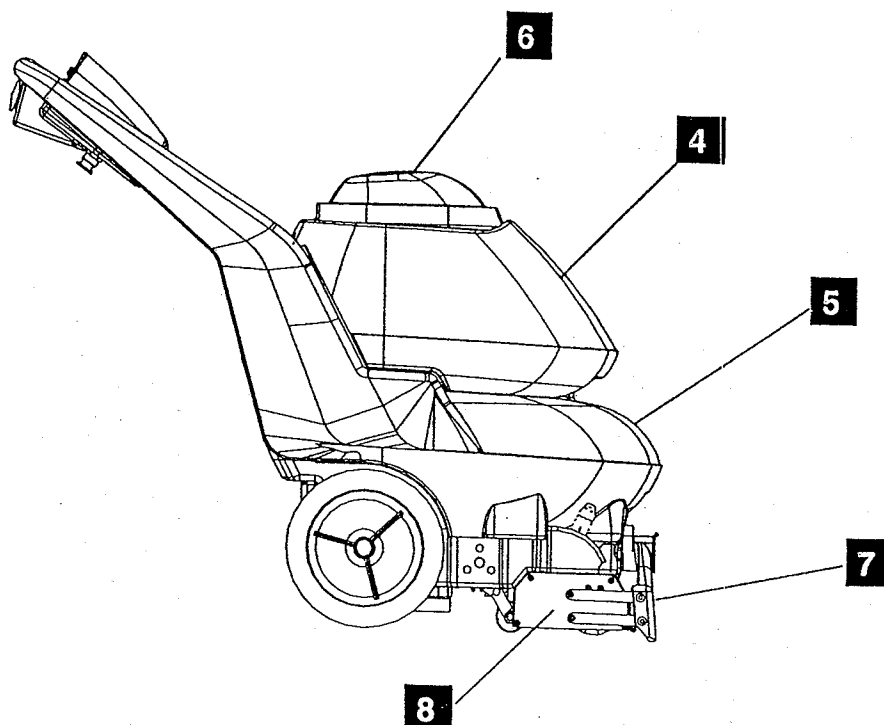
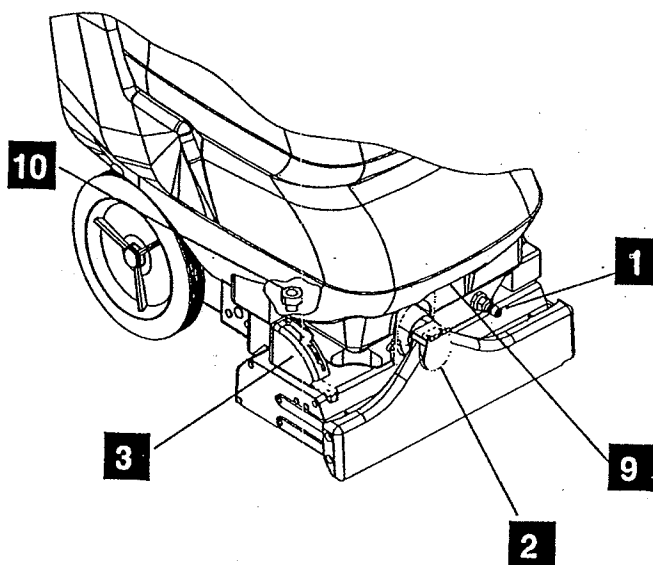
CONTROLS/COMPONENT LOCATIONS



1. **Main Handle.** Used to pull and maneuver machine.
2. **Electrical Cord.**
3. **Pump Switch.** Turns on pump and enables spray.
4. **Brush/Spray Switch.** Turns on brush motor and activates electro-valve to dispense solution to floor through jets. Intermittent, off, and continuous settings.
5. **Vacuum Motor Switch.** Turns on vacuum motor.
6. **Brush Motor Circuit Breaker.** 6 amp. Breaker protecting brush motor.
7. **Vacuum Motor Circuit Breaker.** 15 amp. Breaker protecting vacuum motor.
8. **Recovery Dump Hose.** Facilitates draining dirty cleaning solution.
9. **Solution Dump Hose.** Facilitates draining excess cleaning solution from solution tank.

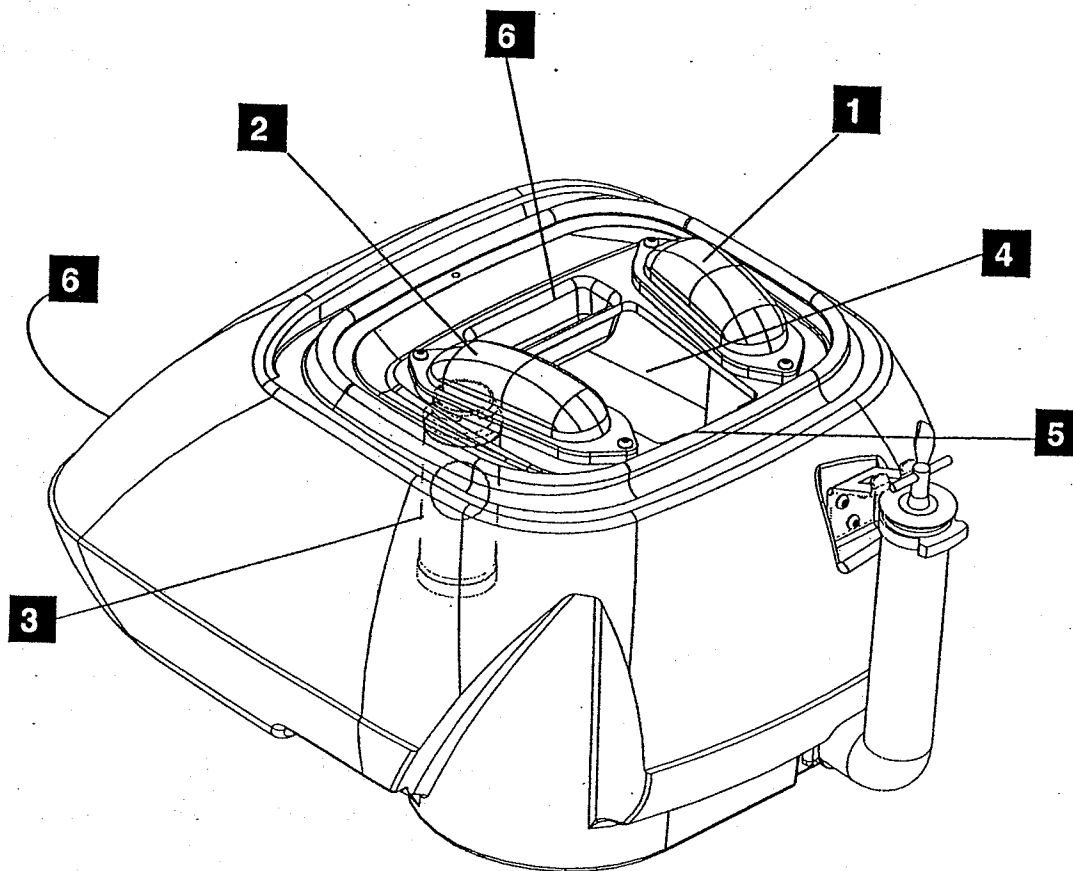
CONTROLS/COMPONENT LOCATIONS

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.**

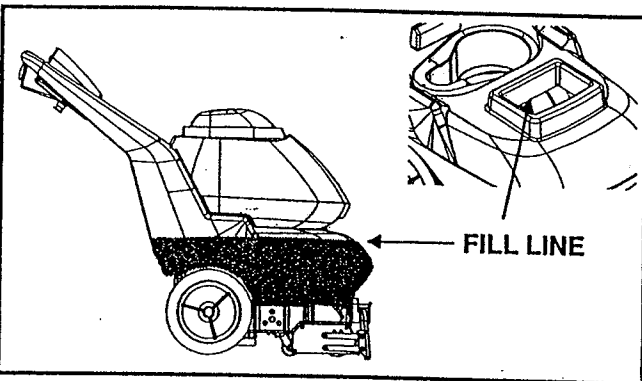
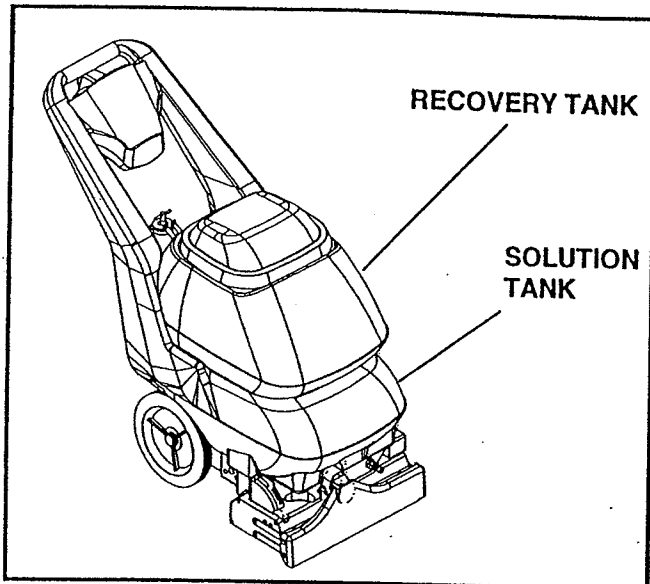


CONTROLS/COMPONENT LOCATIONS

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 BFP8

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

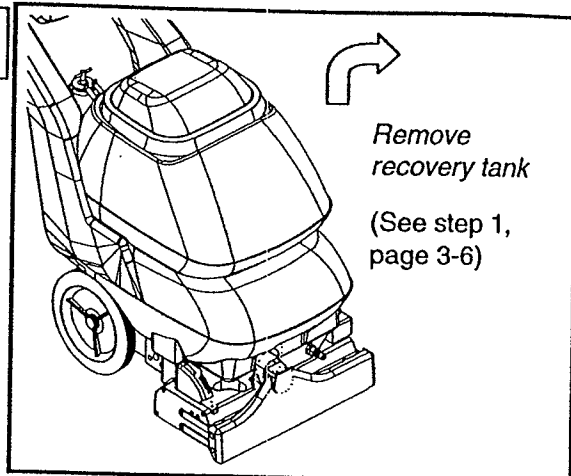
Alkalis
Detergents
Hydroxides
Soaps
Vinegar

Non-Compatible Chemicals

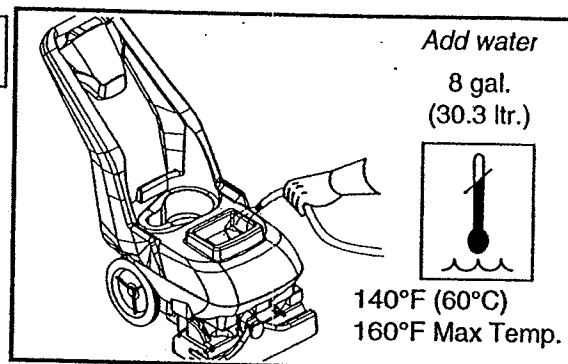
Aldehydes
Aromatic Hydrocarbons
SP Butyls
Carbon Tetrachloride
Clorox*
Chlorinated Bleaches
Chlorinated Hydrocarbons
Lysol*
Methyl Ethel Ketone (MEK)
Perchlorethylene (perc)
Phenolics
Trichlorethylene
D-Limonene

* Product Trademark Names

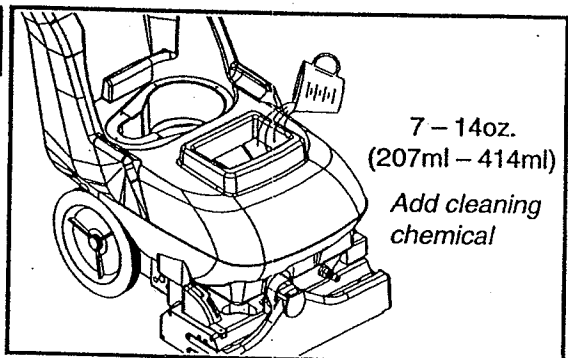
STEP
1



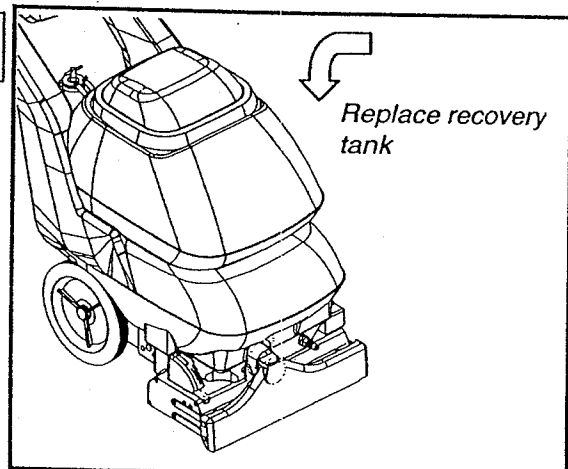
STEP
2



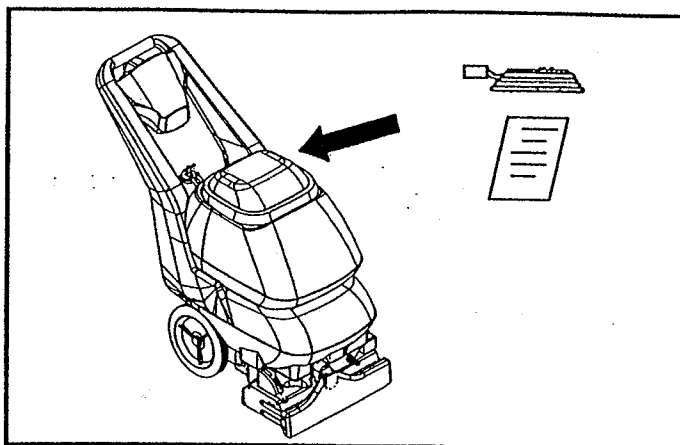
STEP
3



STEP
4

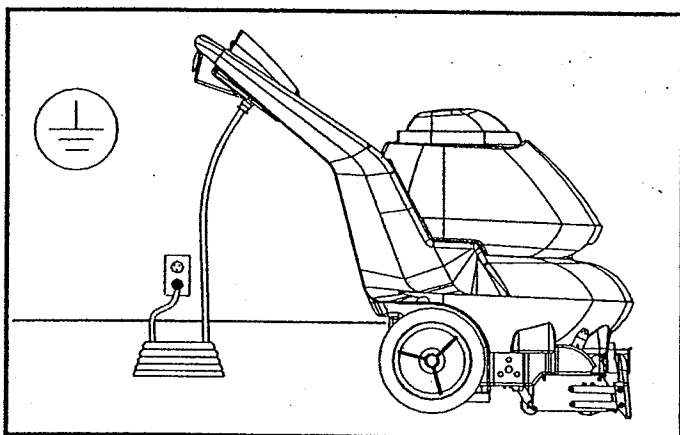


OPERATIONS



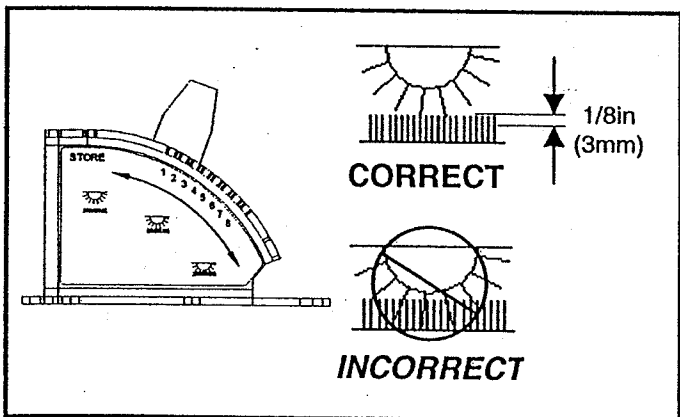
STEP 1

Remove electrical cord and literature from recovery tank. Fill solution tank (see filling instructions page 3-5).



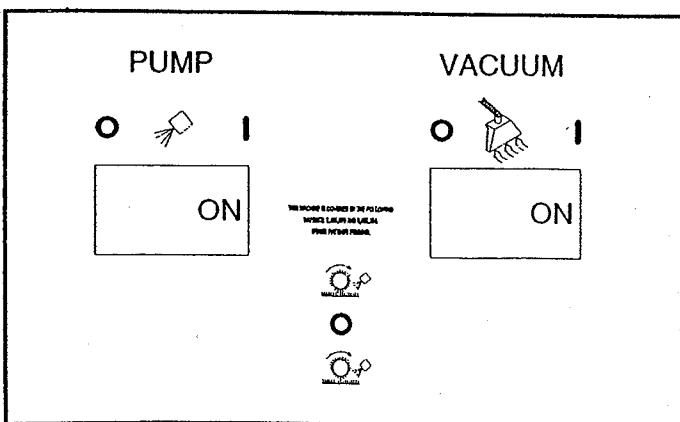
STEP 2

Wrap cord through yellow strain relief on handle then 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.*



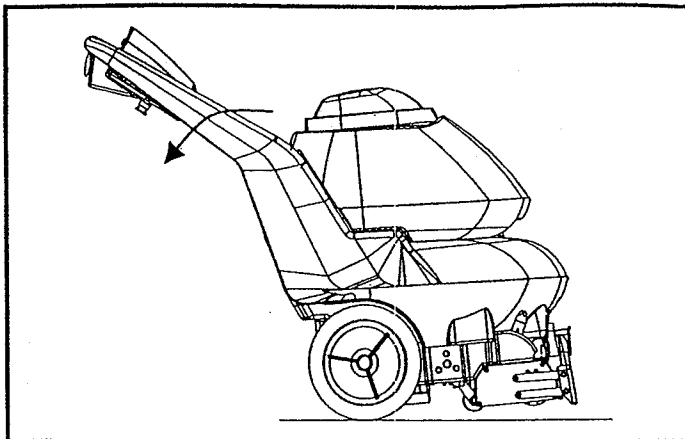
STEP 4

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

OPERATIONS

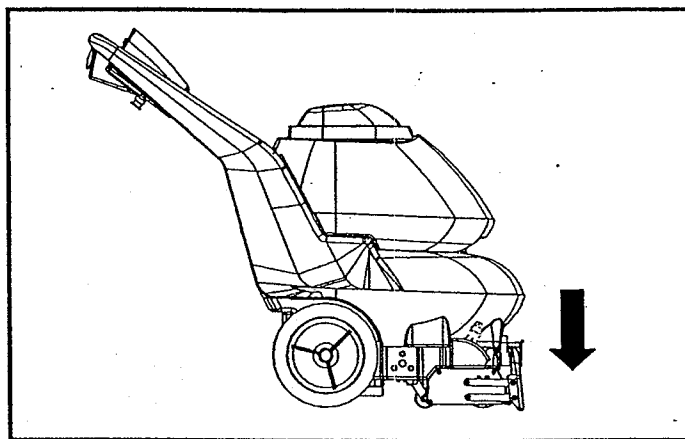
Tip machine back by main handle to move to starting point.

STEP
5



Lower machine to floor.

STEP
6

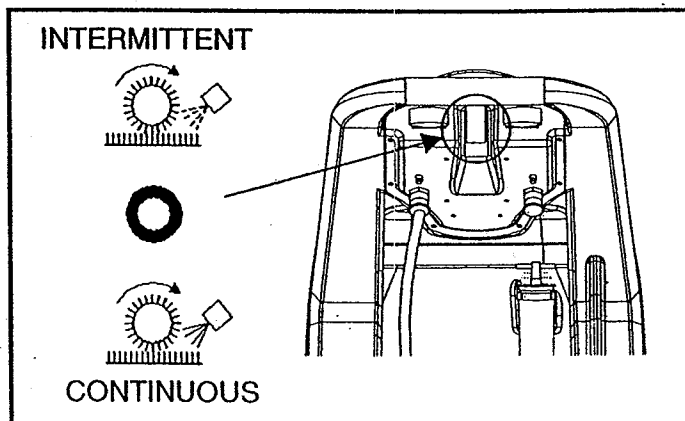


Select intermittent or continuous switch setting to turn on brush and start solution spray.

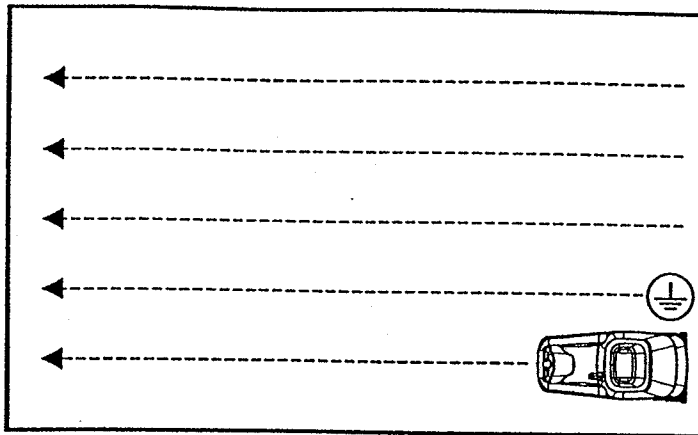
The intermittent setting requires the operator to hold the switch in the "on" position with the thumb, and is typically used in small areas where short cleaning passes are made.

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

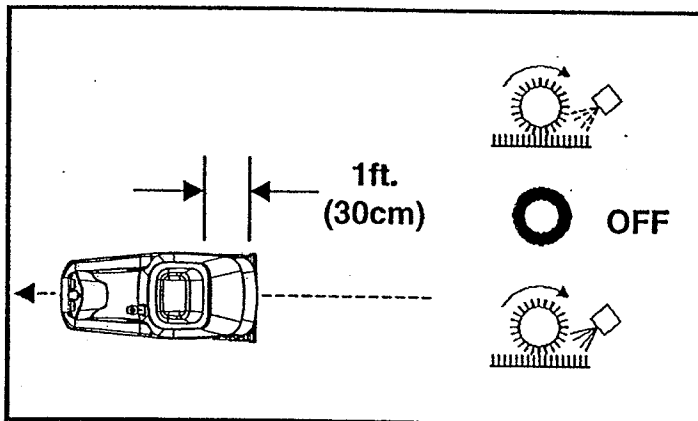


CLEANING PROCEDURE



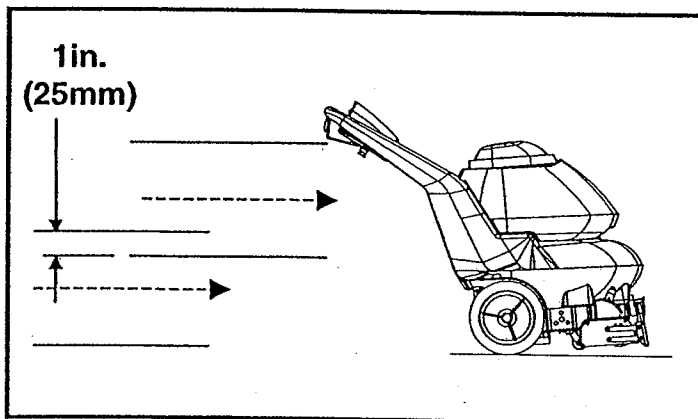
STEP
1

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



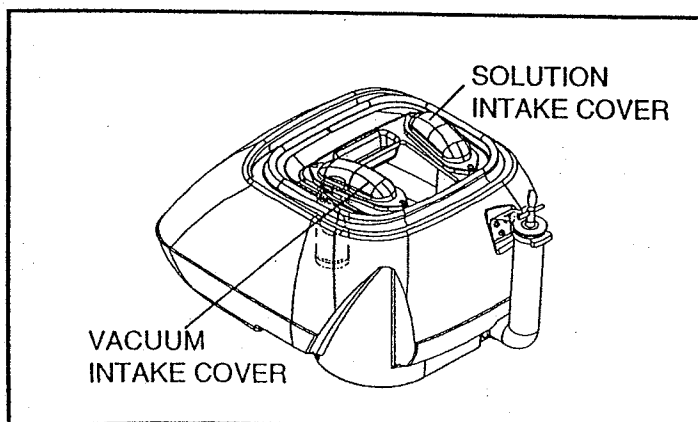
STEP
2

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 1 inch.



STEP
4

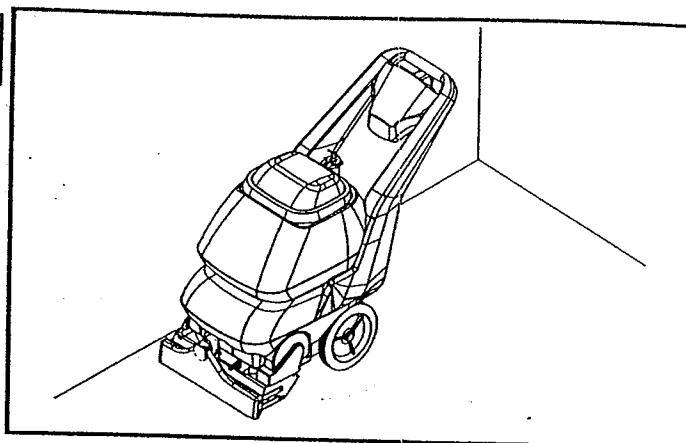
During operation, observe the following: The BFP 8 is equipped with clear internal covers to facilitate operator viewing of dirty solution and vacuum air flow.

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

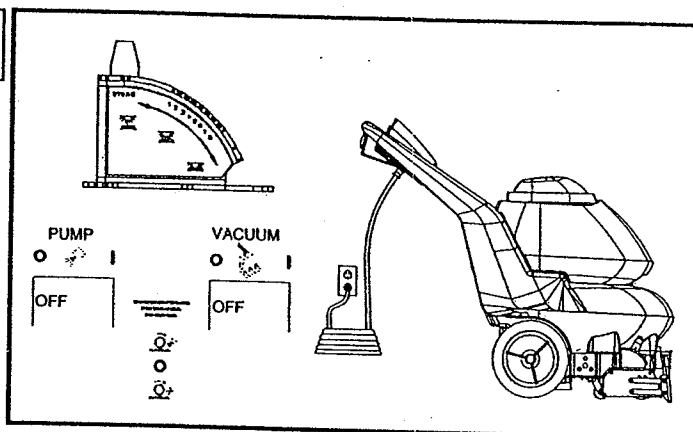
Use right side of machine for cleaning against walls.

STEP
5



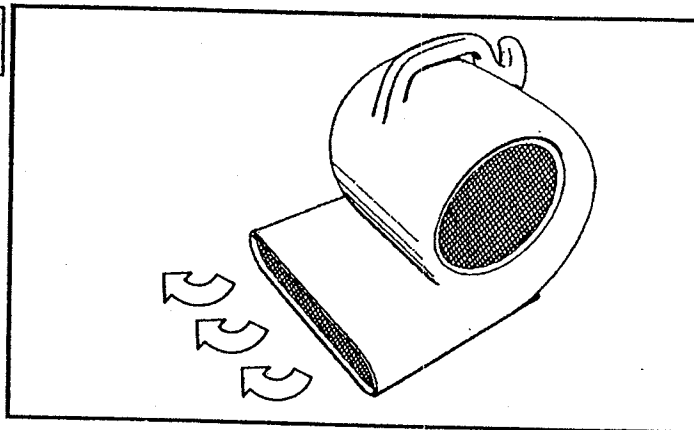
After cleaning, turn off all controls, return brush to storage position and carefully unplug machine.

STEP
6



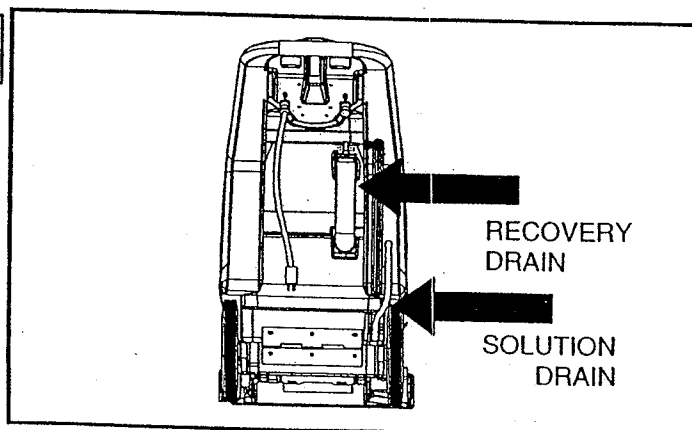
To speed drying, use a fan.

STEP
7

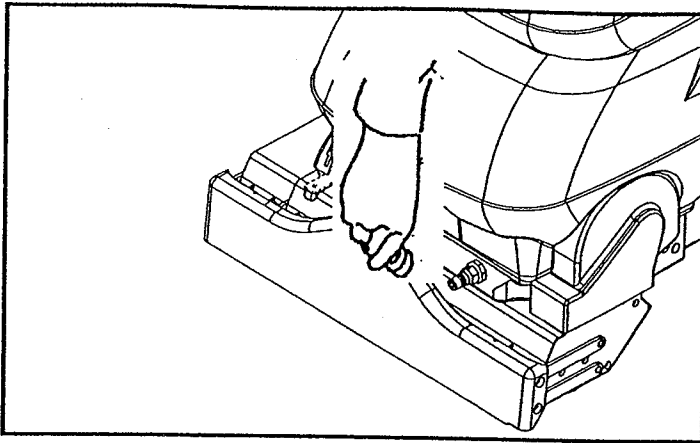


Empty recovery tank by releasing dump hose. Use a hose with cold water to clean out the recovery tank. Also drain solution tank after each use.

STEP
8

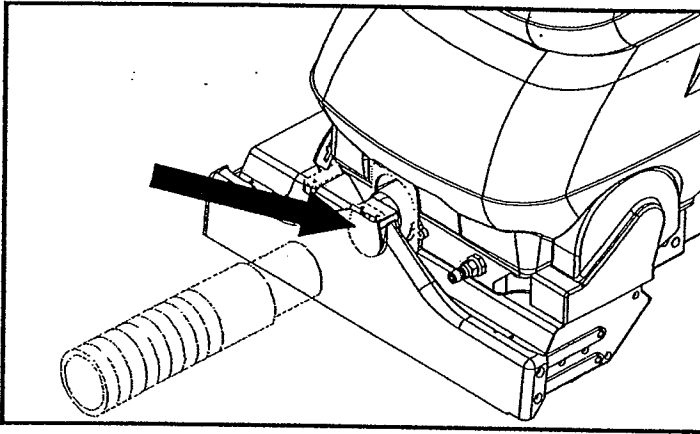


ACCESSORY TOOL USAGE



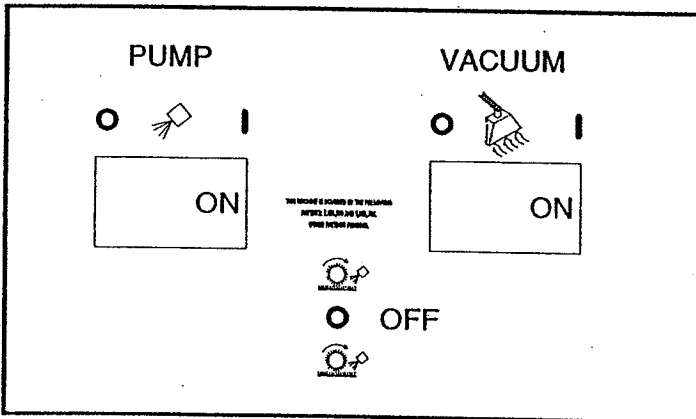
STEP
1

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



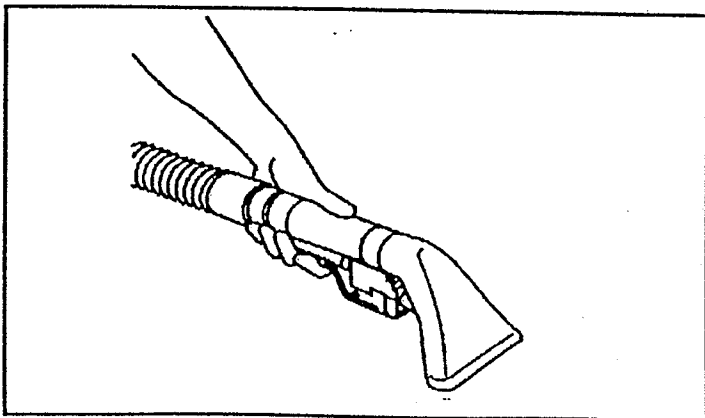
STEP
2

Lift door on front of vacuum shoe and insert 1 ½ inch hose cuff into hole. Ensure clear dome is in place on top of machine to create vacuum.



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.

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

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.



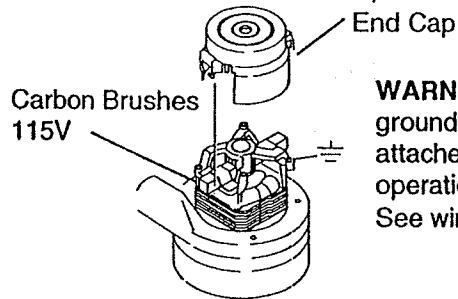
WARNING:

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.

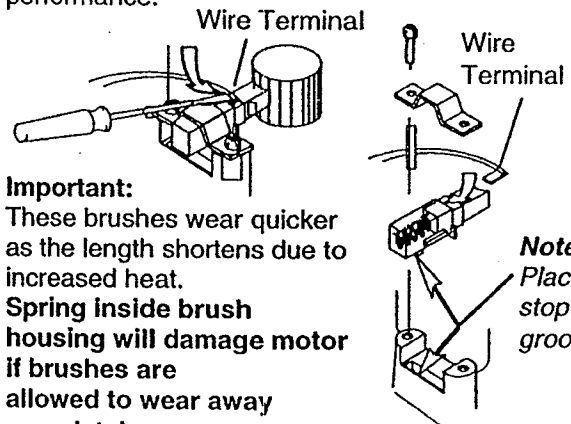
Vac Motor Carbon Brushes Replacement



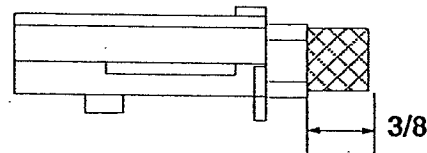
WARNING: The green ground wire must be attached for safe operation. See wiring diagram.

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.



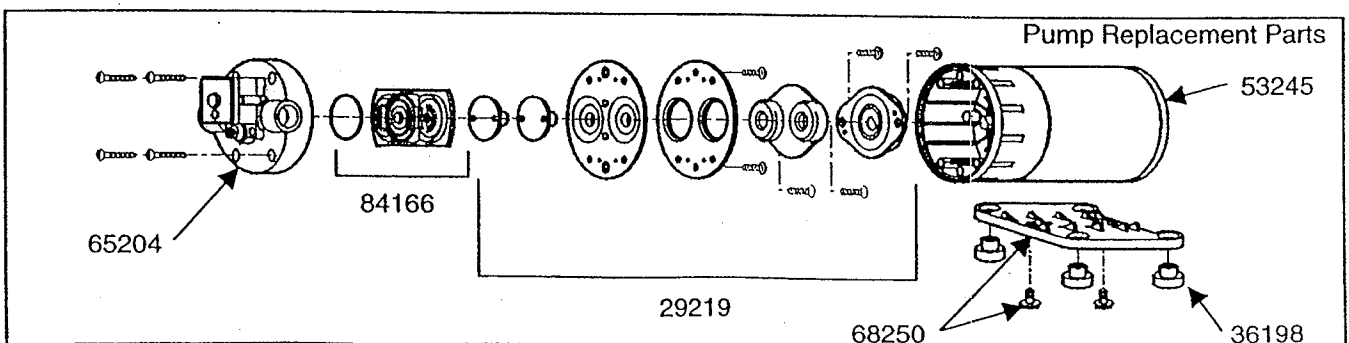
Important: These brushes wear quicker as the length shortens due to increased heat. **Spring inside brush housing will damage motor if brushes are allowed to wear away completely.**



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

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.



MAINTENANCE

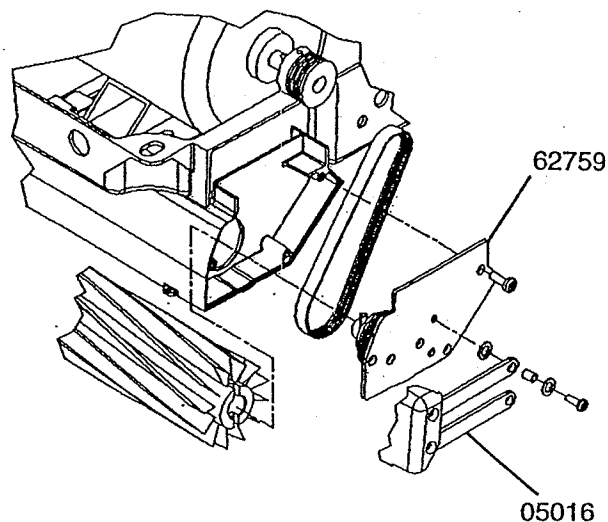


WARNING:

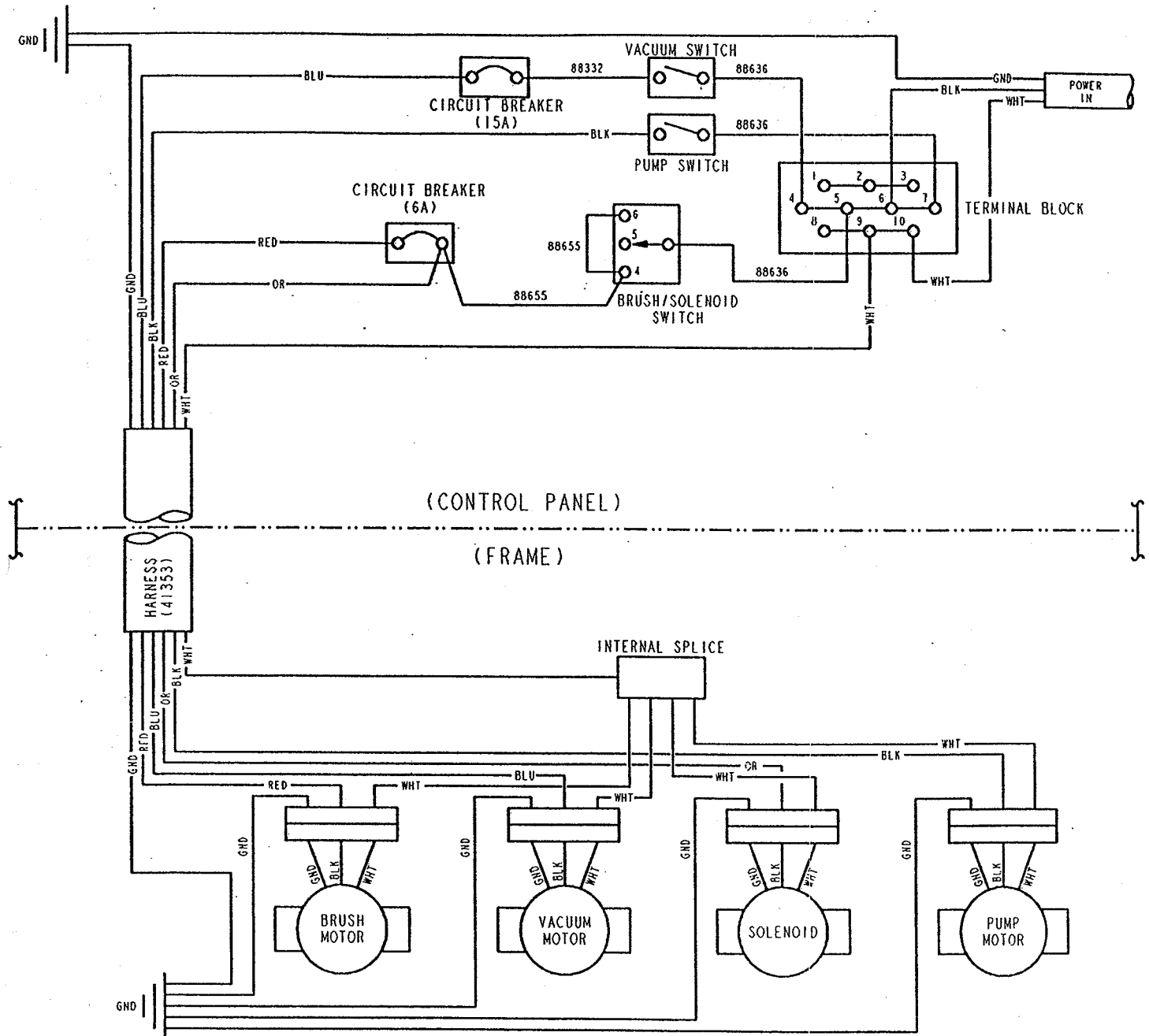
ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

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.



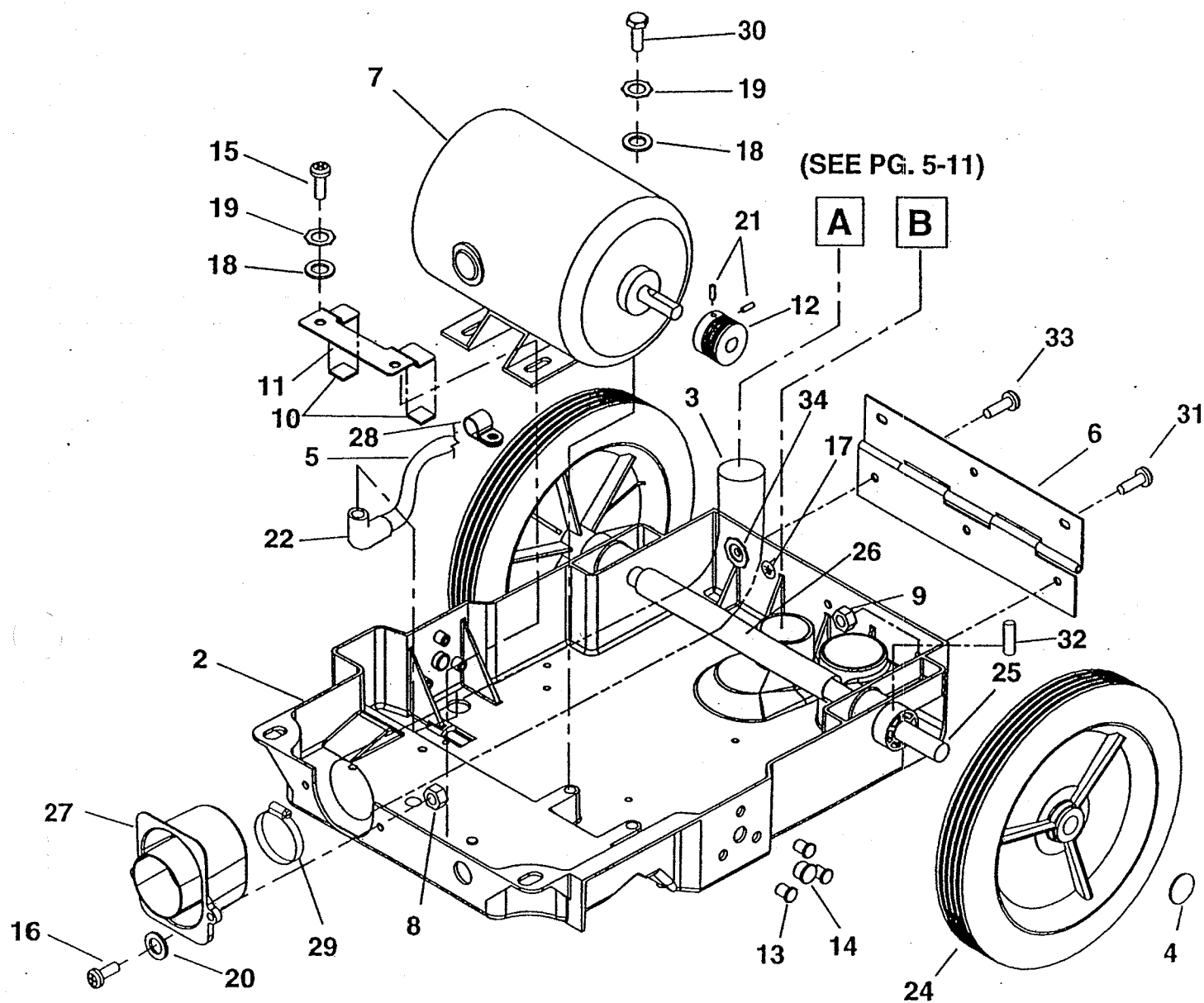
WIRING DIAGRAM



TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
No Power, Nothing Runs	1. Is the cord plugged in. 2. Circuit breaker tripped in building. 3. Faulty switch. 4. Faulty power cord or pigtail.	1. Plug in cord. 2. Reset breaker 3. Call for service. 4. Call for service.
Vacuum Motor Will Not Run	1. Vacuum circuit breaker tripped. 2. Faulty main vacuum switch. 3. Loose wiring. 4. Faulty vac motor.	1. Reset breaker 2. Call for service. 3. Call for service. 4. Call for service.
Vacuum Motor Runs But Suction Is Poor	1. Debris lodged in vac shoe. 2. Dome gasket defective or missing. 3. Dome is not seated properly. 4. Recovery tank full / float ball stuck in the up position.	1. Remove debris from vac shoe. 2. Replace as necessary. 3. Make sure dome is in proper place on tank. 4. Turn off vac motor. Drain and rinse recovery tank.
Poor Or No Water Flow (Carpet Is Streaky)	1. Main pump switch off. 2. Jets clogged or missing. 3. Solution filter clogged. 4. Faulty solenoid.	1. Turn on. 2. Clean using a vinegar /water solution or replace. 3. Drain solution tank and clean solution filter. 4. Call for service.
Brush Does Not Spin	1. Brush switch off. 2. Brush circuit breaker tripped 3. Brush belt broken. 4. Faulty brush motor.	1. Turn on brush switch. 2. Reset circuit breaker. 3. Replace as necessary. 4. Call for service.

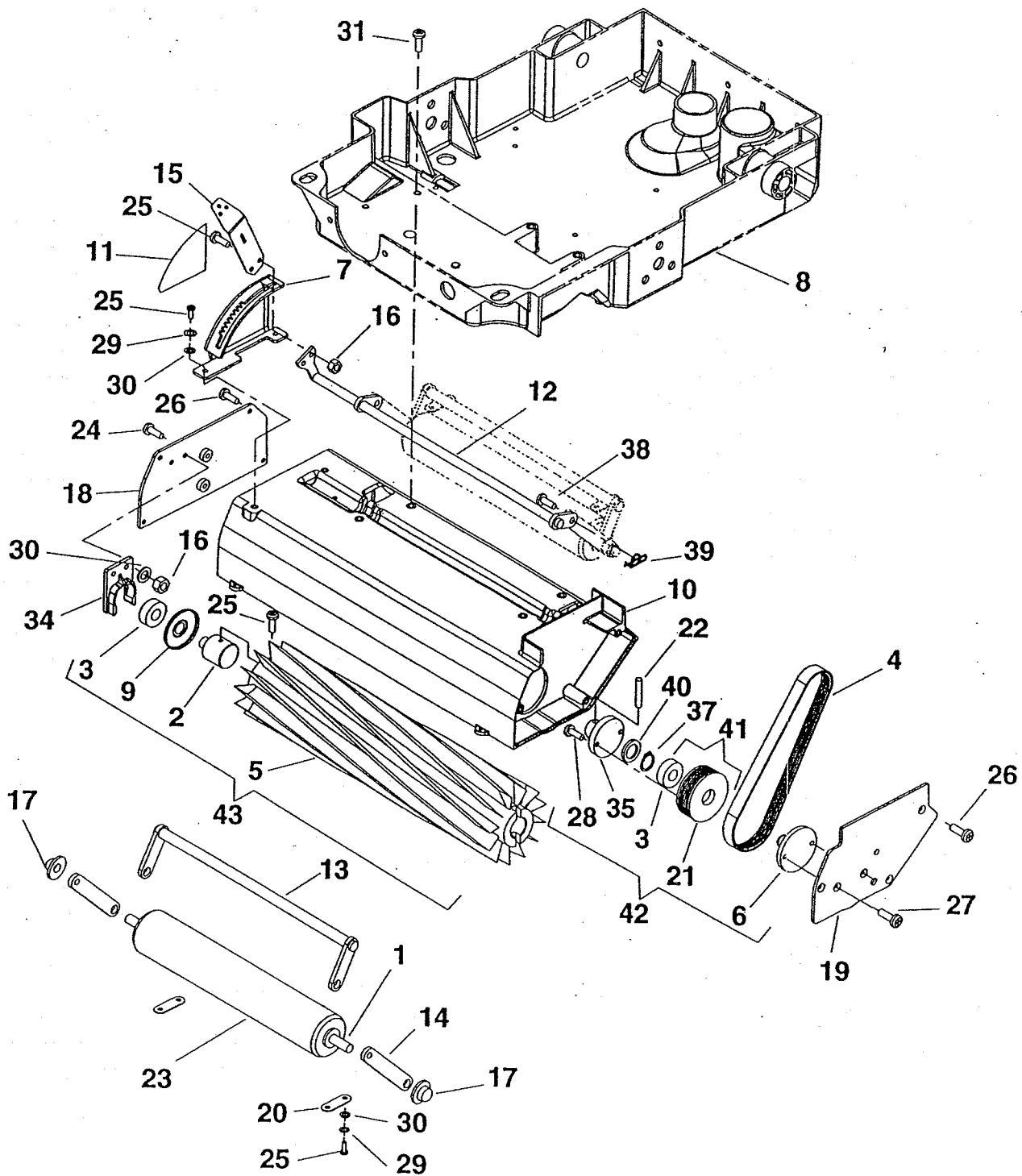
FRAME ASSEMBLY



FRAME ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	OPEN				
2	34341	1	FRAME		
3	39528	1	HOSE ASM, 1.5 BLK VAC X 15.5		
4	41236	2	HUBCAP, 5/8" SHAFT		
5	41353	1	HARNESS, MAIN		
6	41354	1	HINGE, TANK TO FRAME		
7	53640	1	MOTOR ASM, BRUSH		
8	57030	2	NUT, 10-32 HEX NYLOCK		
9	57245	3	NUT, 1/4-20 HEX NYLOCK SS		
10	99809	2	FOAM TAPE, 1/8 THK X 3/4 1SDA		
11	62761	1	PLATE, BRUSH MTR CLAMP		
12	64099	1	PULLEY, 1.4 OD, 6GR, MICRO-V		
13	66282	6	PLUG, HOLE, .375" BLK		
14	66288	2	PLUG, 9/16 OD BLK NYLON		
15	70085	2	SCR, 1/4-20 X 1/2 PPHMS SS		
16	70066	2	SCR, 10-32 X 3/4 PPHMS		
17	50279	1	LABEL, GROUND SYMBOL		
18	87013	4	WASHER, 1/4 ID X 5/8 OD SS		
19	87025	4	WASHER, 1/4 LOCK EXT STAR SS		
20	87018	2	WASHER, #10 X 9/16 OD		
21	70074	2	SET SCR, 10-32 X 1/4 KCP		
22	73197	1	STRAIN RELIEF, 90 DEGREE		
23	OPEN				
24	89114	2	WHEEL, 1-5/16 X 9.625 DIA		
25	03107	1	AXLE, 5/8 X 17.06L		
26	99667	10"	HEAT SHRINK, 3/4 ID UL/CSA		
27	73943	1	SEAL, FRAME/TANK		
28	20035	1	CLAMP, 7/16 DIA NYLON UL		
29	20041	1	CLAMP, 2.0" WORM GEAR		
30	70271	2	SCR, 1/4-20 X 1/2 HHCS PLTD		
31	70057	2	SCR, 1/4-20 X 1 PPHMS SS		
32	66052	1	PIN, ROLL 1/8" X 1.0"L		
33	70697	1	SCR, 1/4-20 X 1.25 PPHMS SS		
34	57105	3	NUT, 1/4-20 HEX W/ STAR WASHER		

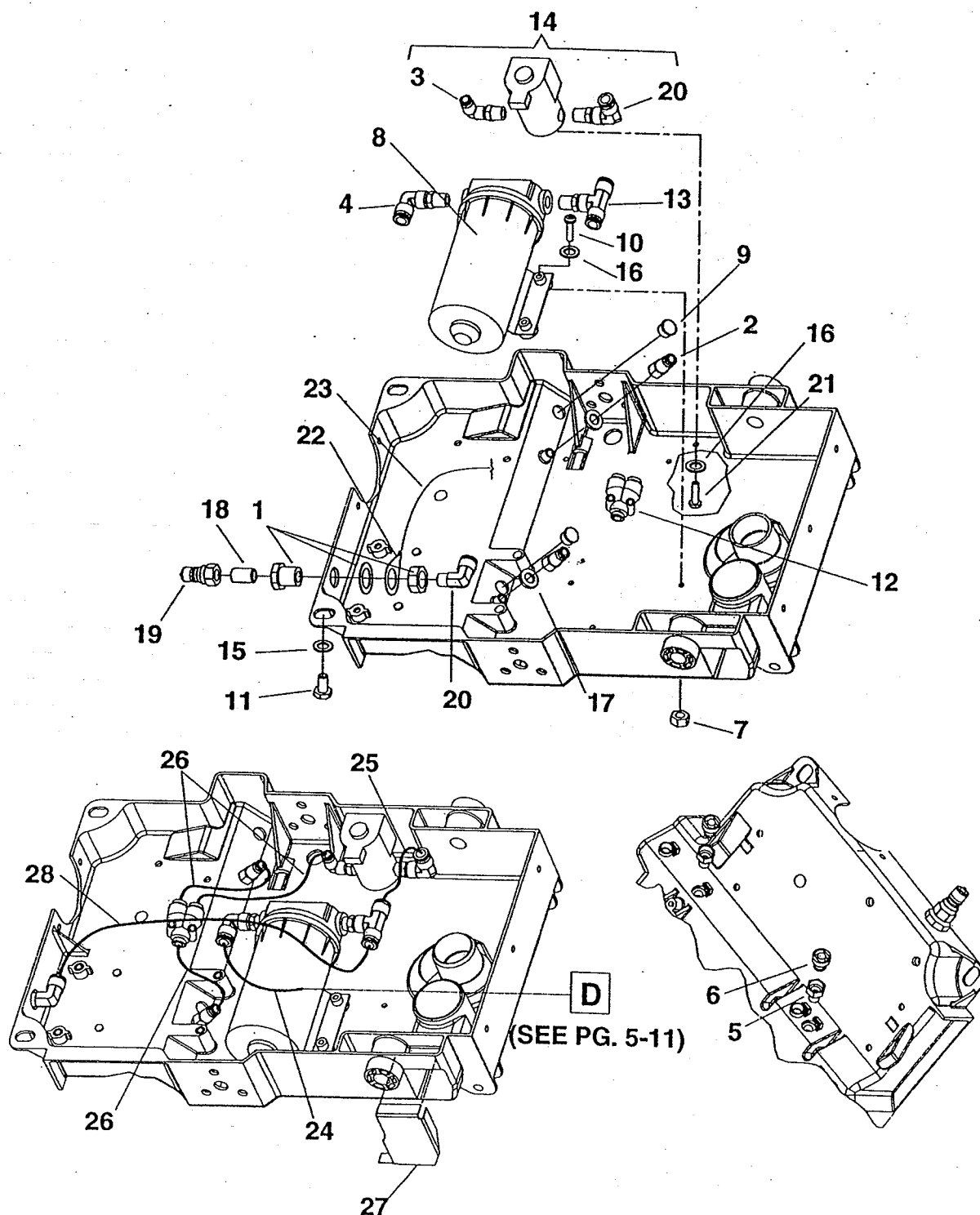
BRUSH ASSEMBLY



BRUSH ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	03110	1	AXLE, ROLLER		
2	04084	1	ADAPTER, BRUSH BRG.		
3	09019	2	BEARING, 1.125ODX.500IDX.375		
4	11045	1	BELT, 180J6 MICRO-V		
5	12031	1	BRUSH, 15L X 3.38OD		
6	140343	1	BRKT, BRUSH PULLEY		
7	140351	1	BRKT, BRUSH HEIGHT		
8	34341	REF	FRAME		
9	36192	1	GUARD, THREAD		
10	41345	1	HOUSING, BRUSH 15"		
11	50998	1	LABEL, BRUSH HEIGHT		
12	51311	1	LINKAGE, ASM, BRUSH HEIGHT		
13	51312	1	LINKAGE ASM, ROLLER SUPPORT		
14	51314	2	LINK, ROLLER, FRONT		
15	51317	1	LEVER, HEIGHT ADJUSTMENT		
16	57030	4	NUT, 10-32 HEX NYLOCK		
17	57271	2	NUT, 3/8 DIA CAP, TYPE PUSH PLT		
18	62758	1	PLATE, BRUSH HOUSING RH		
19	62759	1	PLATE, BRUSH HOUSING LH		
20	62762	2	PLATE, AXLE RETAINER		
21	64098	1	PULLEY, 2.2 OD, 6GR, MICRO-V		
22	66192	1	PIN, ROLL 1/4 X 1.25L		
23	67411	1	ROLLER, 1.9 DIA X 10.5 LG		
24	70043	2	SCR, 10-32 X 5/8 PFHMS		
25	70088	6	SCR, 10-32 X 1/2 PPHMS SS DL		
26	70177	7	SCR, 10-32 X 1/2 FHMS SS		
27	70232	2	SCR, 10-32 X 3/8 FHMS SS		
28	70497	2	SCR, #10-24 X 1/2 SHCS		
29	87016	4	WASHER, #10 LOCK EXT STAR SS		
30	87018	6	WASHER, #10 X 9/16 OD		
31	70675	4	SCR, 1/4-20 X 5/8 THMS PLTD NP		
32	OPEN				
33	OPEN				
34	27805	1	CLIP, BEARING		
35	29157	1	DRIVER, BRUSH		
36	OPEN				
37	67094	1	RING, 1/2 EXT. SNAP		
38	66310	2	PIN, CLEVIS 1/4 X 1/2 PLTD		
39	80604	2	COTTER, 1/4" RING		
40	73966	1	SPACER, .81ID X 1.06OD, ALUM		
41	64102	1	PULLEY ASM, BRUSH		
42	29208	1	DRIVER ASM, BRUSH		
43	12514	1	BRUSH ASM, 15 IN		

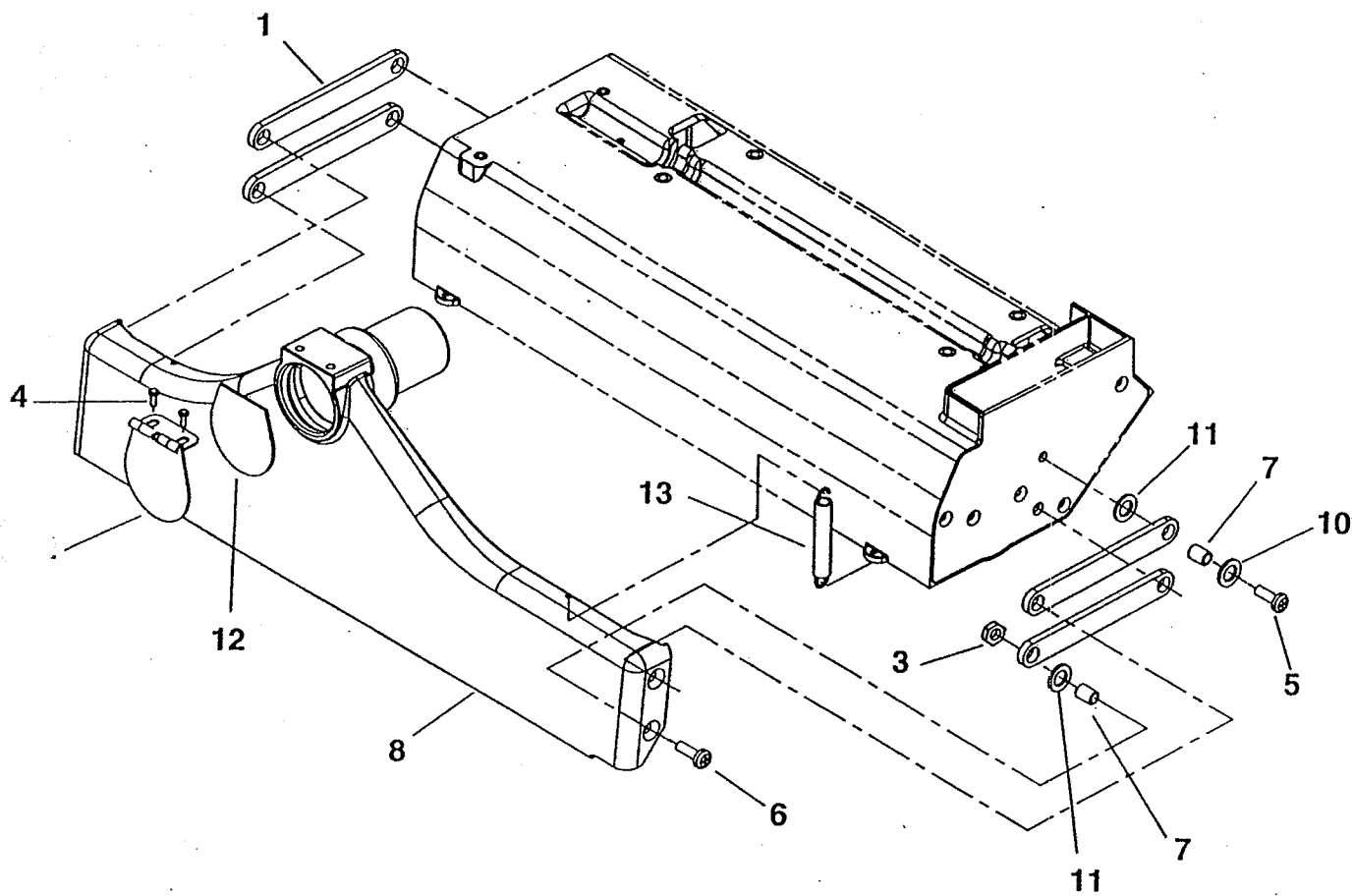
PUMP ASSEMBLY



PUMP ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	22072	1	COUPLING, 1/4 ANCHOR W/1" HEX		
2	22090	2	CONNECTOR, 1/8FPT X 1/4 TUBEQC		
3	31072	1	ELBOW, SWIVEL, 1/4MPTX1/4TUBE		
4	31074	1	ELBOW, SWIVEL, 3/8MPTX3/8TUBEQC		
5	44067	2	JET BODY, MINI PROMAX BODY		
6	44073	2	JET, MINI PROMAX 9503		
7	57030	2	NUT, 10-32 HEX NYLOCK		
8	65183	1	PUMP ASM		
9	66288	2	PLUG, 9/16 OD BLK NYLON		
10	70386	2	SCR, 10-32 X 1.0 PPHMS		
11	70271	2	SCR, 1/4-20 X 1/2 HHCS PLTD		
12	34355	1	FITTING, 1/4 TUBE, "Y", QC		
13	78419	1	TEE, 3/8 MPT X 3/8 TUBE, QC		
14	84160	1	VALVE ASM, SOLENOID CLP FAMILY		
15	87191	2	WASHER, 1/4"IDX1.0OD. FLAT SS		
16	87018	4	WASHER, #10 X 9/16 OD		
17	87192	2	WASHER, 7/16 X 3/4 X .19RUBBER		
18	56014	1	NIPPLE, 1/4 CLOSE		
19	56012	1	NIPPLE, 1/4 FPT QD		
20	31076	2	ELBOW, 1/4 MPT X 3/8 TUBE, QC		
21	70088	2	SCR, 10-32 X 1/2 PPHMS SS		
22	67420	1	RING, GROUND		
23	880228	1	WIRE, 24" GRN/18 76011 X STRIP		
24	39529	1	HOSE, 3/8 URETHANE X 29"		
25	39530	1	HOSE, 3/8 NYLON X 6"		
26	39531	3	HOSE, 1/4 URETHANE X 6"		
27	73963	1	SCREEN, INTAKE		
28	39551	1	HOSE, 3/8 NYLON X 29"		

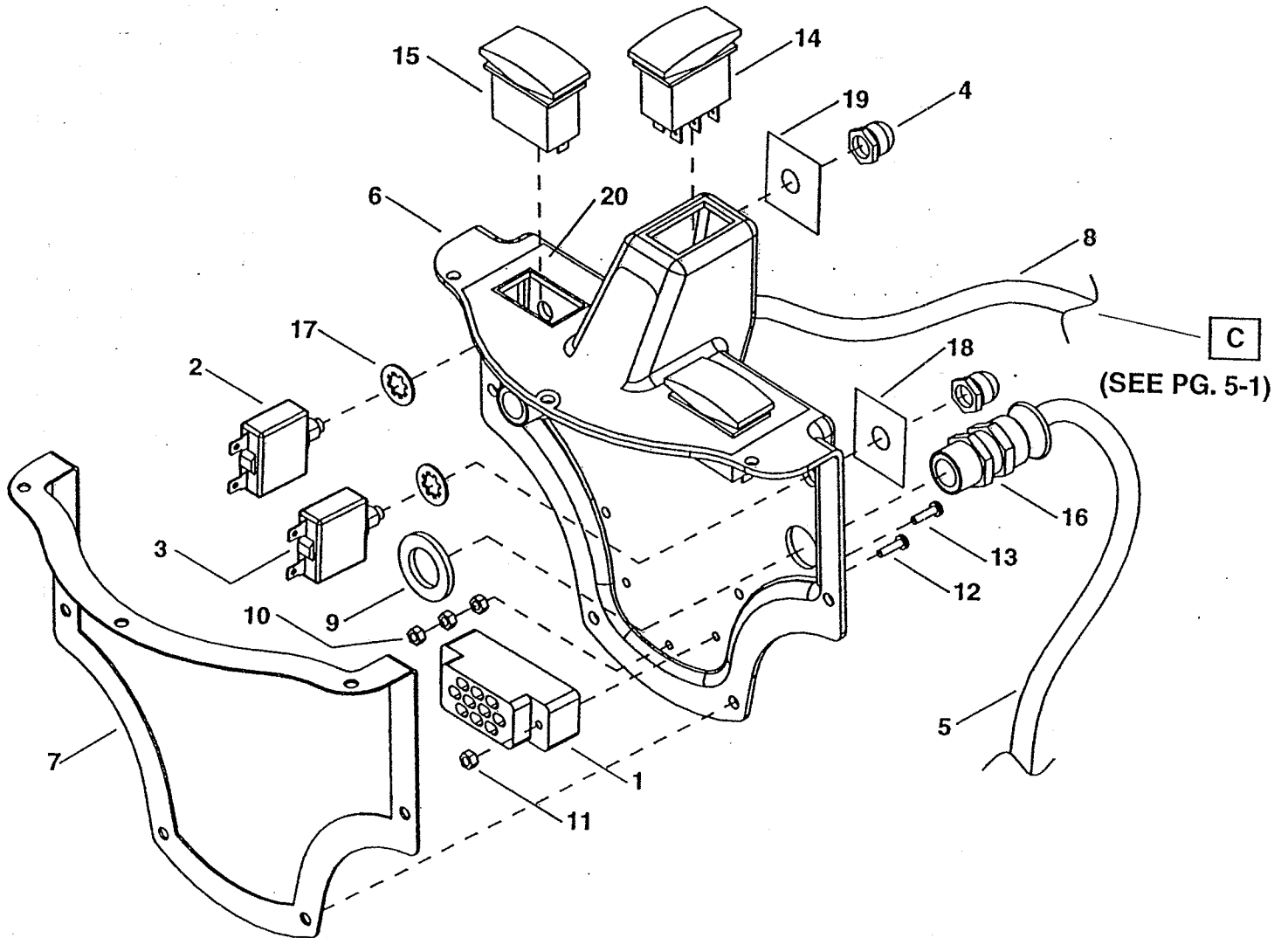
VACUUM SHOE ASSEMBLY



VACUUM SHOE ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	05016	4	ARM, VAC SHOE PARALLEL		
2	27674	1	COVER, ACCESSORY PORT		
3	57245	4	NUT, 1/4-20 HEX NYLOCK SS		
4	70351	2	SCR, 10-32 X 3/8 HHTR W/STAR		
5	70360	4	SCR, 1/4-20 X.75 PPHMS PHIL		
6	70390	4	SCR, 1/4-20 X 1 FHCS PLTD		
7	73958	8	SPACER, 3/8ODX.058WX.2814,CRS		
8	85039	1	VAC SHOE, 15"		
9	OPEN				
10	87013	4	WASHER, 1/4 ID X 5/8 OD SS		
11	87074	8	WASHER, WAVE 3/8ID X3/4D X.125		
12	35171	1	GASKET, ACCESSORY PORT		
13	73955	2	SPRING, EXT .38D X2.75L X.055W		

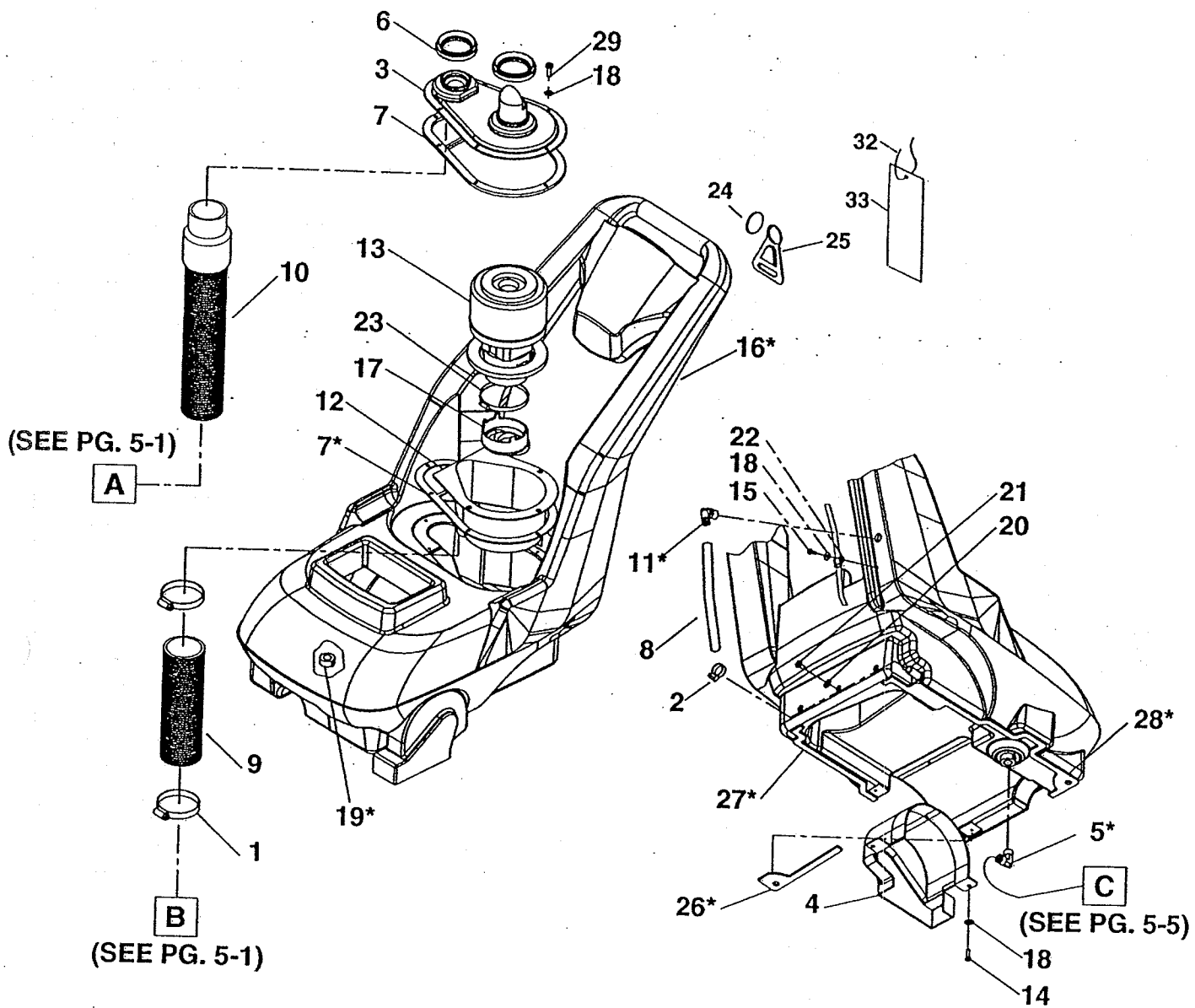
CONTROL PANEL ASSEMBLY



CONTROL PANEL ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	14020	1	TERMINAL BLOCK, 115V (3-4-3)		
2	14700	1	BREAKER, 15A 250VAC 50VDC		
3	14832	1	BREAKER, 6A VDE CIRCUIT		
4	14942	2	BOOT, 3/8 CIRCUIT BREAKER		
5	23679	1	CORD ASM, 14/3 X 22" YLW		
6	27872	1	COVER, FB8 PANEL		
7	35247	1	GASKET, FB8 PANEL		
8	41353	1	HARNESS, MAIN		
9	57040	2	NUT, 1/2 NPT CONDUIT		
10	57104	3	NUT, 10-32 W/STAR WASHER PLTD		
11	57116	2	NUT, 6-32 W/STAR WASHER PLTD		
12	70235	2	SCR, 6-32 X 1.0 PH BLK NYLON		
13	70386	1	SCR, 10-32 X 1.0 PPHMS		
14	72126	1	SWITCH, DPDT 3-POSITION ROCKER		
15	72130	2	SWITCH, SPST 2-POSITION ROCKER		
16	73505	2	STRAIN RELIEF, 1/2 NPT TRUMPET		
17	87100	2	WASHER, 3/8 ID INT.LOCK THIN		
18	500226	3	LABEL, CIRCUIT BREAKER BRUSH		
19	500227	1	LABEL, CIRCUIT BREAKER VAC		
20	500154	1	LABEL, CONTROL PANEL		

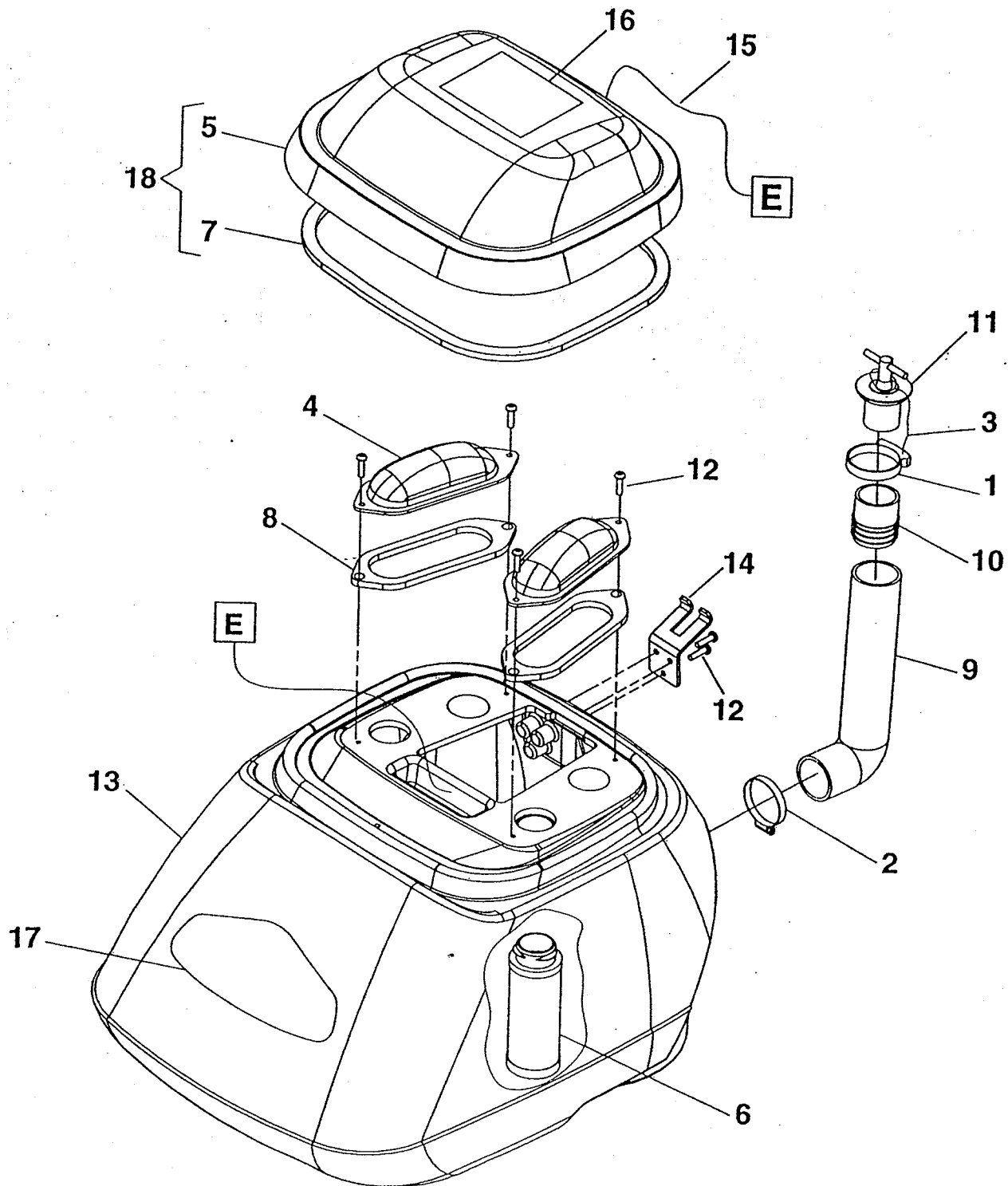
SOLUTION TANK ASSEMBLY



SOLUTION TANK ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	20041	3	CLAMP, 2.0" WORM GEAR		
2	20042	1	CLAMP, 3/8 HOSE (D-SLOT)		
3	27809	1	COVER, VAC MOTOR		
4	27810	1	COVER, BELT		
5	31081	1	ELBOW, 3/8 MPT X 3/8 TUBE, PLASTIC		
6	35175	2	GASKET, TANK TO VAC COVER		
7	35231	2	GASKET, VAC COVER		
8	39526	1	HOSE, 1/2 CLEAR X 12		
9	39527	1	HOSE, 1.5 BLK VAC X 3.0		
10	39528	REF	HOSE ASM, 1.5 BLK VAC X 15.5		
11	31081	1	HOSEBARB		
12	41348	1	HOUSING, VAC MOTOR		
13	53789	1	VAC MOTOR ASM		
14	70114	3	SCR, #10 X 3/4 PPHST TYPE B		
15	70088	2	SCR, 10-32 X 1/2 PPHMS SS		
16	75268	1	TANK, FB8 SOLUTION		
17	85037	1	VENT, COOLING AIR SMALL		
18	87018	11	WASHER, #10 X 9/16 OD		
19	73864	1	STRAINER, 3/8 IN. NPT 60 MESH		
20	87013	3	WASHER, 1/4 ID X 5/8 OD SS		
21	70085	3	SCR, 1/4-20 X 1/2 PPHMS SS DL		
22	20035	2	CLAMP, 7/16 DIA NYLON UL		
23	20092	1	CLAMP, 3.5" WORM GEAR		
24	67147	1	RING, 2" DIA SPLIT		
25	73169	1	STRAIN RELIEF, CORD HOOK		
26	35236	1	GASKET, TANK, L-F		
27	35237	1	GASKET, TANK, L-R		
28	35238	1	GASKET, TANK, RH		
29	70525	6	SCR, #10 X 1.0 PPHST TYPE B		
30	OPEN				
31	75318	1	TANK ASM, SOLUTION		* ITEMS INCLUDED
32	27417	1	CORD, 99807 1/8 X 12"		
33	500191	1	CARD, INSTRUCTION		

RECOVERY TANK ASSEMBLY



RECOVERY TANK ASSEMBLY

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	20002	1	CLAMP, 2.00 NYLON RATCHET		
2	20041	1	CLAMP, 2.0" WORM GEAR		
3	27670	1	CORD, DRAIN PLUG TRIDENT		
4	27816	2	COVER, REC. TANK		
5	28060	1	DOME		
6	34351	1	FLOAT SHUT-OFF		
7	35230	1	GASKET, DOME		
8	35232	2	GASKET, PORT COVER		
9	39353	1	HOSE, 1.5 X 12.0 DRAIN		
10	40019	1	HOSEBARB, 1.5 DOUBLE MCHD		
11	66227	1	PLUG, DRAIN HOSE		
12	70114	7	SCR, #10 X 3/4 PPHST TYPE B		
13	75322	1	TANK, RECOVERY		
14	140133	1	BRKT, RECOVERY HOSE MTG		
15	27417	1	CORD, 99807 1/8 X 12"		
16	500009	1	LABEL, WARNING		
17	500229	1	LABEL, MAIN		
18	28061	1	DOME ASM		

SUGGESTED SPARE PARTS

SUGGESTED SPARE PARTS		
DESCRIPTION	PART NUMBER	PAGE
BRUSH, 15L X 3.38OD	12031	21
BELT, 180J6 MICRO-V	11045	21
BEARING, 1.125ODX.500IDX.375	09019	21
JET BODY, MINI PROMAX BODY	44067	23
JET, MINI PROMAX 9503	44073	23
PUMP ASM	65183	23
VALVE ASM, SOLENOID CLP FAMILY	84160	23
GASKET, ACCESSORY PORT	35171	25
BREAKER, 15A 250VAC 50 VDC	14700	27
BREAKER, 6A VDE CIRCUIT	14832	27
SWITCH, SPST 2-POSITION ROCKER	72130	27
SWITCH, DPDT 3-POSITION ROCKER	72126	27
VAC MOTOR ASM	53789	29
STRAINER, 3/8 IN. NPT 60 MESH	73864	29
FLOAT, SHUT-OFF	34351	31
DOME ASM	28061	31
PLUG, DRAIN HOSE	66227	31

NOTES:

