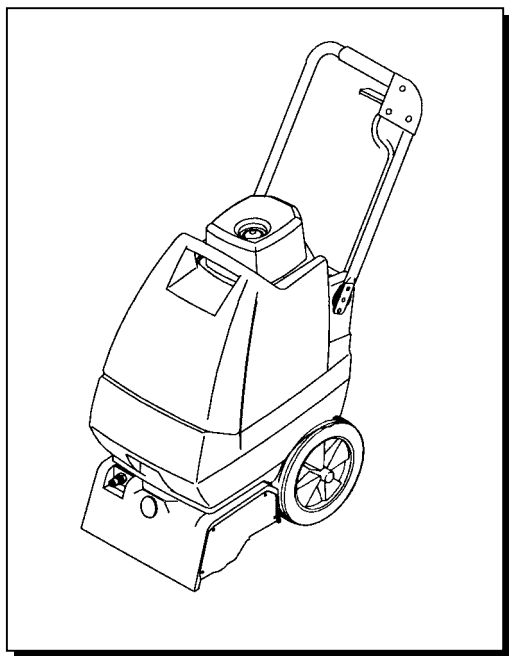


EXPERT™

CARPET EXTRACTOR



MODEL	POWER SOURCE
EXP	115V ELECTRIC
EXPJ	100V ELECTRIC

QUEST® ... for Continuous Improvement.
Windsor's Quality Management System is Certified ISO 9001.

Read these instructions before using the machine



MACHINE DATALOG

MODEL- _____
DATE OF PURCHASE- _____
SERIAL NUMBER- _____
SALES REPERESENTIVE- _____
DISTRIBUTOR NAME- _____
OPERATIONS GUIDE NUMBER – 98363 ©Copyright 1996 Windsor Industries, Printed in U.S.A.

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INFORMATION IN THIS GUIDE

This Owner's Guide contains valuable information about the operation, maintenance, service and part numbers for repairs of your Windsor machine. Please read this introductory page thoroughly to become familiar with the contents of the owner's guide, making the information you are looking for easier to locate.

The owner's guide consists of multiple sections of reference information, and the remainder contains part information for ordering parts for the machine. At the top of each page is the name of the particular section. This way you can quickly locate each section more easily.

REFERENCE SECTIONS

The reference information sections of this guide are as follows; General Information, Operation, Maintenance.

GENERAL INFORMATION

This section of the guide contains safety precautions. The Safety Precautions are an overview of the safety measures to be observed when operating and maintaining the machine.

OPERATION

The Operation section of the guide contains the information needed to operate the machine. There is a complete list of instruments and controls on the machine, an overview of machine operation, and information on how to transport and store the machine.

MAINTENANCE

The Maintenance section contains the information on the suggested maintenance procedures and adjustments to keeping the machine in top operating condition. The section includes a maintenance schedule and the areas of the machine to be addressed. Each subject of maintenance is covered in more detail in such areas as Lubrication, Motors and Electrical System.

PART SECTIONS

To easily locate the part needed, please refer to The Table of Contents for component locations to find the general area where the part is located. Use the information to quickly locate the correct component. The remaining sections of the guide contain part number information for ordering repair parts for the machine. The guide contains part number information on every machine model available. Therefore there will be part number information in your guide which you will not need to refer to when placing an order.

ORDERING REPAIR PARTS

If you are in need of technical assistance contact your WINDSOR Distributor or Service Center for further assistance. Once you have located a part to order, call your local WINDSOR distributor. Make sure to have the machine's serial number and your Owner's Guide with you to aid in ordering the correct component(s).

NOTES:

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.



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 - 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 Windsor approved replacement parts.

OPERATIONS

HOW IT OPERATES:

This machine is a portable, easy to use carpet extractor designed for use indoors, in a household or light industrial environment.

When operating as a carpet extractor, cleaning solution is dispensed onto the carpet and agitated by a rotating brush. The solution is then extracted from the carpet by a vacuum. The head on the brush is floating, allowing it to automatically adjust to various carpet depths while applying an effective brush pressure.

⚠ WARNING:

1. To avoid electric shock use indoors only.
2. To reduce risk of fire, do not use volatile substances.
3. Use only cleaners intended for carpet application.

INSPECTION:

Carefully unpack and inspect your extractor for shipping damage. Each unit is operated and thoroughly inspected before shipping, and any damage is the responsibility of the carrier, who should be notified immediately.

ELECTRICAL:

This extractor operates on a standard 15 amp 120 volt AC circuit. This is the typical wall receptacle found in household and light industrial environments. Voltages below 105 volts or above 125 volts could cause serious damage to motors. *Special voltage models available. A wiring diagram is mounted inside the rear control panel of machine. A copy of the wiring diagram is included in this Owner's Guide.

GROUNDING INSTRUCTIONS:

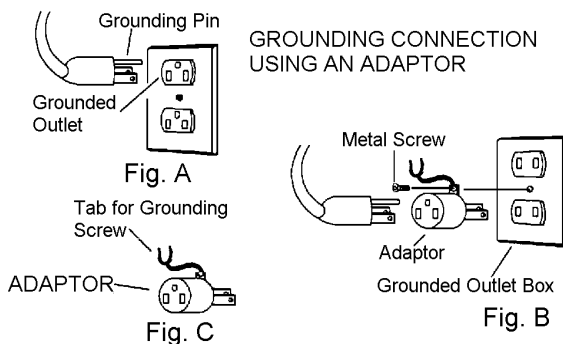
This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted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

⚠ WARNING:

Improper connection of the equipment-grounding conductor can result in 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 – It will not fit the outlet, have a proper outlet installed by a qualified electrician.

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.

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: This extractor is equipped with a 25 ft. 16/3 power cord.

⚠ CAUTION:

To avoid possible distortion of polyethylene solution/recovery tanks, DO NOT USE WATER TEMPERATURE THAT EXCEEDS 140 F (60 C).

CHEMICALS

⚠ CAUTION:

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.

Suitable Chemicals

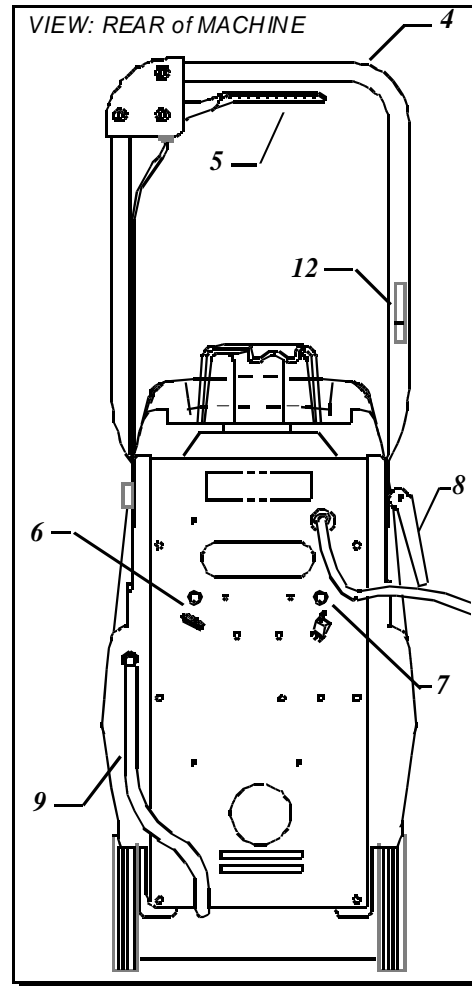
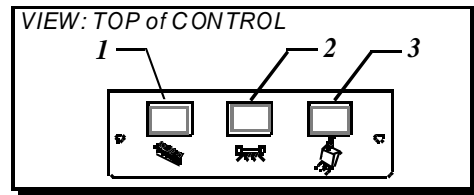
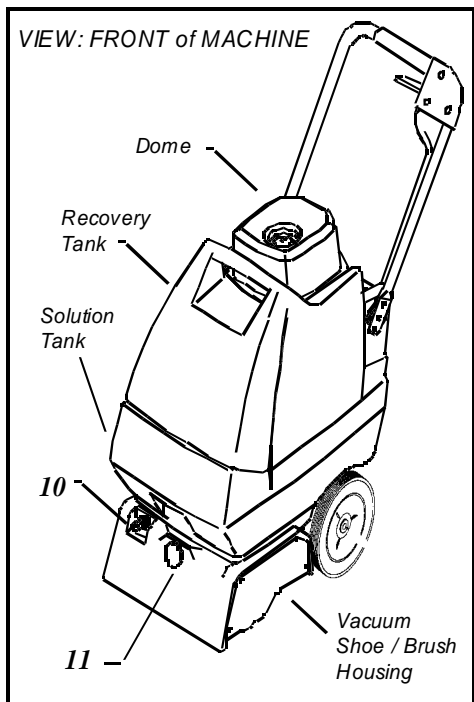
Alkalis
Defoaming Agents
Detergents
Soaps
Vinegar
Hydroxides

Incompatible Chemicals

Aldehydes; Butyls
Carbon Tetrachloride
Chlorinated Bleaches
Chlorinated Hydrocarbons
Trichlorethylene
Phenols; Methyls (MEK)
Perchloroethylene (perc)
Aromatic Hydrocarbons
D-Limonene

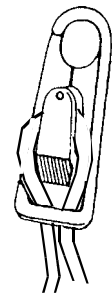
OPTION CONTROL

- 1 **Brush Switch On/Off.** Turns brush motor on and off.
- 2 **Solution Switch On/Off.** Turns solution pump on and off.
- 3 **Vac Switch On/Off.** Turns vacuum motor on and off.
- 4 **Main Handle.**
- 5 **Solution Lever.** Controls the amount of flow of solution to the floor.
- 6 **Brush Motor Circuit Breaker.** Protects brush motor from overheating.
- 7 **Vac Motor Circuit Breaker.** Protects the vac motor from overheating.
- 8 **Handle Adjustment Lever.** Adjusts the main handles angle.
- 9 **Solution Tank Drain Hose.**
- 10 **Accessory Tool Connection.** Solution connection for accessory tools.
- 11 **Accessory Hose Connection.** Hose connection for accessory tool.
- 12 **Cord Hook.**



NOTE: Attach strain relief/cord retainer to the power cord.

1. Make a loop in power cord approximately 12" from strain relief on machine.
2. Slide cord loop through slot in retainer arm. Pull slack cord back through slot to secure. Attach retainer to handle.



OPERATIONS

I OPERATING INSTRUCTIONS

A. FILLING THE SOLUTION TANK:

1. Remove clear dome from recovery tank.
2. Lift upper recovery tank from machine and set aside.
3. Use a clean bucket or hose to fill solution tank with hot water. The solution tank holds 4 gallons (15.2 liters) of cleaning solution.

Do not use the recovery tank to fill the solution tank. Sediment in the recovery tank can damage the solution pump and clog the spray jets, rendering the machine inoperable.

4. Add a non-foaming concentrate for use in hot water extractors at the proportions noted on the container.

Note: Periodically operate extractor with only hot water to remove chemical residue in carpet.

To avoid possible distortion of polyethylene solution/recovery tanks, DO NOT USE WATER WITH A TEMPERATURE THAT EXCEEDS 140° F (60° C).

5. Place recovery tank back on machine.
6. Place dome on recovery tank. Make sure dome is seated correctly to ensure proper vacuum seal.

Use only the suitable chemicals listed above. Using incompatible chemicals will damage the machine. Carefully read ingredients on manufacturer's label before using any product in this machine.

II OPERATING THE MACHINE

1. Vacuum the carpet and make sure it is cleared of surface debris before cleaning.
2. Plug power cord into a grounded wall outlet.

Defeating the grounding pin on the power cord can result in a severe electrical shock.

3. Turn on the pump, brush and vacuum switches, listening for each motor to turn on.

NOTE: The vacuum and the brush are protected by circuit breakers located on the back panel, below their respective switch.

NOTE: If either of these motors does not respond to being switched on, reset the circuit breakers by pressing them in, and attempt to switch the machine on again.

OPERATING THE MACHINE *cont.*

NOTE: If solution does not dispense in an even pattern across the width of the machine, the spray jet may be clogged. Tilt the machine back and remove the spray tip by pushing in and turning it one quarter turn. Wash it thoroughly, and blow dry.

NOTE: Do not use pins, wire, etc. to clean spray jet nozzle as this will deform the jet and destroy the spray pattern.

6. Begin with the machine at the edge of the carpet. Actuate the solution lever while pulling the machine backwards. Release solution lever at least 12 inches before the end of each cleaning pass. This will ensure all dispensed cleaning solution is extracted from carpet.

While operating machine, check for excessive foam build-up in the recovery tank. If excessive foam is present, add a defoamer solution to recovery tank, or empty tank.

7. Empty recovery tank when approximately 3/4 full. If the recovery tank is overfilled, the water will drain back onto the carpet when the vacuum is switched off.
8. Ventilate area after carpet has been cleaned. Keep children and pets away and do not walk on carpet until it is dry.

A Windblower™ fan can be used to reduce drying time.

III OPERATING MACHINE WITH ACCESSORY TOOLS

This extractor is easily adapted for use the following Windsor accessory tools: DHT-UPH3-SW-SFW-SW/PRO-DDH-SPW

1. Lift flap on the front of vac shoe and insert hose cuff into the vac shoe, ensuring that there is a tight fit.
2. Attach the solution hose from accessory tool to the brass solution fitting on the front of machine.
3. Switch on the pump and the vacuum. The application of cleaning solution is now controlled by the lever on the accessory tool.

Do not switch on brush when operating the machine with accessory tools. Carpet damage may occur.

NOTE: The solution pump is not intended to run dry. When using the extractor for vacuum pick-up only, insure that the pump switch is turned off.

PROTECT FROM FREEZING

If it becomes necessary to store in temperatures that could drop below 40° F, the pumping system, hoses and valves must be protected from freezing with a methyl hydrate window washer antifreeze solution.

NOTE: Do not use ethylene glycol or cooling system antifreezes.

1. Add on a gallon of window washer antifreeze to the supply tank.
2. Turn on pump switch and spray until the antifreeze solution fills the solution lines.
3. Drain out the leftover antifreeze from the supply tank. Always allow the unit to reach room temperatures before filling with hot water or operating.

DAILY/REGULAR MAINTENANCE

WARNING

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 screens in solution tank, and on top of tube in recovery tank.
3. Flush pumping system with 1 or 2 gallons of clean, hot water.
4. Check spray jet for full spray pattern.
5. Empty the recovery tank and rinse with clean water.
6. Check for and remove any lint or debris around brush and vac shoe.

PERIODIC MAINTENANCE

1. After every 25 hours of operation, 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.
2. If the spray jet becomes clogged, remove the spray tip, wash it thoroughly, and blow dry.

NOTE: Do not use pins, wire, etc. to clean spray jet nozzle as this will deform the jet and destroy the spray pattern.

PERIODIC MAINTENANCE *cont..*

3. Periodically inspect all hoses, electrical cables, filters, gaskets and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss.
4. The electrical cable must be well insulated, if the cable insulation is broken or frayed, repair or replace it immediately. Don't take chances with electrical fire or shock.
5. The filter in the bottom of the solution tank must be clean to allow free flow of cleaning solution. The screen filter on the vacuum tube in the recovery tank must be free of lint buildup to ensure full vacuum strength.
6. The dome gasket must be properly seated and free of damage to create the air seal needed to extract water.

MAINTENANCE INSTRUCTIONS

WARNING

Remove machine power cord from electrical source before making any adjustments or repairs to the machine.

WARNING

Only qualified maintenance personnel are to perform repairs.

BRUSH ASSEMBLY

1. Situate machine in order to access bottom cover. Remove screws (6) and bottom cover. Remove screws (3) and belt cover.
2. Loosen nuts at brush motor and slide motor forward to reduce belt tension. Remove belt.
3. Remove lower brush stop on belt side (closest to you with machine upside down) and rotate black plastic finger guard toward rear of machine.
4. Remove one screw holding each brush bearing to brush bracket.
5. With the blade of a screw drive, bend bearings inward enough to disengage locating tabs.
6. Slide brush, axle, and bearing out of brush bracket.
7. Inspect/replace brush and bearings as required. The brush is equipped with yellow wear indicator bristles. The brush should be replaced when it wears down to the height of the yellow bristles.
8. When reinstalling brush, check belt for proper tension.

MAINTENANCE

TO ACCESS PUMP AND BRUSH MOTOR

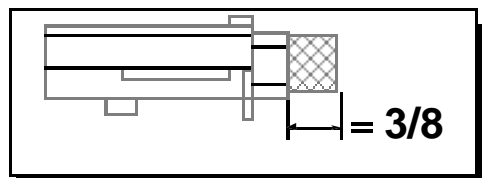
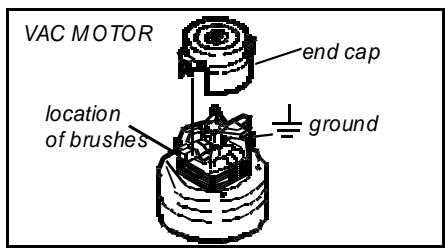
1. Situate machine in order to access bottom cover. Remove screws (6) and bottom cover.
2. To remove brush motor, loosen nuts at brush motor and slide motor forward to reduce belt tension. Remove belt. Continue loosening nuts at brush motor until free from brush bracket. Disconnect wires.
3. To remove pump, loosen screws holding pump mounting bracket to casting and remove as one unit. Lift pump and mounting bracket up to gain access to all hose clamps which need to be removed before pump is free from machine. Disconnect wires.

TO ACCESS VAC MOTOR

1. Lift off recovery tank.
2. Remove screws (5) and lift off vac motor cover.
3. Vac motor can be lifted out and electrically disconnected.
4. When replacing the vac motor, make sure the excess wire lengths do not get pinched in the gaskets which seal the vac motor. If need be, remove the rear control panel and pull excess lead length out of the vac motor compartment.

VAC MOTOR BRUSHES

1. To inspect motor brushes, remove vac motor from tank by disconnecting wires. Then remove black vac motor fan housing and brush holder assembly. Brushes should be replaced when worn to 3/8 inch or after about 750 operating hours. After second brush replacement, the armature commutator should be checked for pitting and concentricity. Vac motors can be repaired, but such repairs should be made by a qualified motor repair shop.



VAC MOTOR BRUSHES cont..

NOTE: When replacing electrical component parts refer to Wiring Diagram for proper connection.

NOTE: The vac motor is protected by a circuit breaker located in the switch panel. The breaker will only trip under conditions of abuse.

SOLUTION VALVE CABLE ADJUSTMENT

The solution valve cable has been factory set so that action of the solution lever moves the valve from fully closed to fully open. As the machine operates the cable will stretch and the lever will not be able to fully open the valve. The play in the solution lever should be checked periodically and adjusted when needed as described below.

1. Loosen the lock nut at the point where the cable enters the lever housing on the machine handle.
2. Turn the threaded end of the cable sleeve to adjust. Threading the end further into the housing will slacken the cable, increasing the play in the lever. Threading the end out of the housing will tighten the cable, decreasing the play in the lever.
3. Tighten the locking nut against the housing after adjusting the play as required.
4. If there is not enough thread adjustment available, the cable length can be adjusted directly at its connection to the solution valve. This is accessed by removing the back control panel.

SPRAY JET

Note: To prevent a clogged jet due to alkali build-up, the spray system should be flushed with 1 to 2 gallons of clean hot water at the end of each day.

1. Situate machine in order to access bottom cover. The machine is equipped with a "Quick Change" jet that can be easily removed for cleaning. To remove- push jet in and rotate 1/4 turn.
2. Wash jet and blow dry. Do not use pins or wire to remove obstruction as this will change spray pattern.
- 3.

TROUBLESHOOTING CHART

No Power To Machine:

Dead electrical circuit breaker in fuse box
Faulty power cord
Power switch failure
Faulty circuit breaker
Internal wiring problem

Corrective Action:

Check building circuit breaker.
Replace power switch failure/Test switch for continuity/Replace if necessary.
Test circuit breaker for continuity. Replace if necessary. With the machine unplugged, check for, and correct, any loose wire connections inside the machine at the switches and terminal block.

Electrical Shock:

Equipment not grounding
Receptacle not grounded
Internal electrical problem

Follow grounding instructions exactly.
Have an electrician inspect the building's wiring.
Ensure that the machine's wiring matches the appropriate wiring diagram.
Check for and correct any loose wire connections. Replace any wires or components which are short circuiting.

Nuisance Tripping of Circuit Breaker:

Faulty circuit breaker
Mechanical problem

Turn brush motor and pump switches on with machine tilted rearward (brush off floor). Lower machine back to carpet slowly.
Test circuit breaker for continuity/Replace if necessary.
Higher amp draws may indicate a mechanical problem. Find parts which are not moving freely and repair or replace.

Vacuum Motor Speed Varies or Doesn't Run:

Worn motor brushes
Motor worn out
Faulty switch
Faulty circuit breaker
Internal wiring problem

Replace
Replace
Replace
Replace
Check for and correct any loose wire connections,

Loss Of Vacuum:

Loose vac dome
Incorrect seating of recovery tank.
Crack in dome or poor joint
Damaged dome gasket
Lint or dirt clogging vacuum intake screen
Accessory tool clogged
Internal electrical problem

Seat dome squarely over tank opening.
Remove recovery tank, clean off seals on top of solution tank, and reseal recovery tank.
Replace or repair using acrylic plastic cement only.
Replace gasket.
With power off clean vac intake screen found in dome.
Clean out tool, ensure free air flow.
Have a trained service technician inspect and repair the machine.

Accessory Tool Fitting Difficult to Connect:

Corrosion on fitting

Clean with steel wool.
Remove and soak in acetic acid (white vinegar).
Lubricate lightly with silicone base lubricant.

Brush Not Turning:

Belt broken
Faulty switch
Faulty circuit breaker
Faulty brush motor

Remove belt cover on right side of machine.
Inspect belt Replace if necessary.
Replace.
Replace.
If the belt, circuit breaker, and switch have been tested and found to be in good working order, the brush motor may need to be replaced.

Worn Bearings:

Squealing or grinding sound in brush housing

Replace bearings.

Carpet Not Getting Clean:

Severe soil conditions

Make several passes at right angles to each other.
Use a pre-spray.

Carpet Too Wet:

Worn spray jet(s)

Replace spray jets which are producing more than a fine mist.

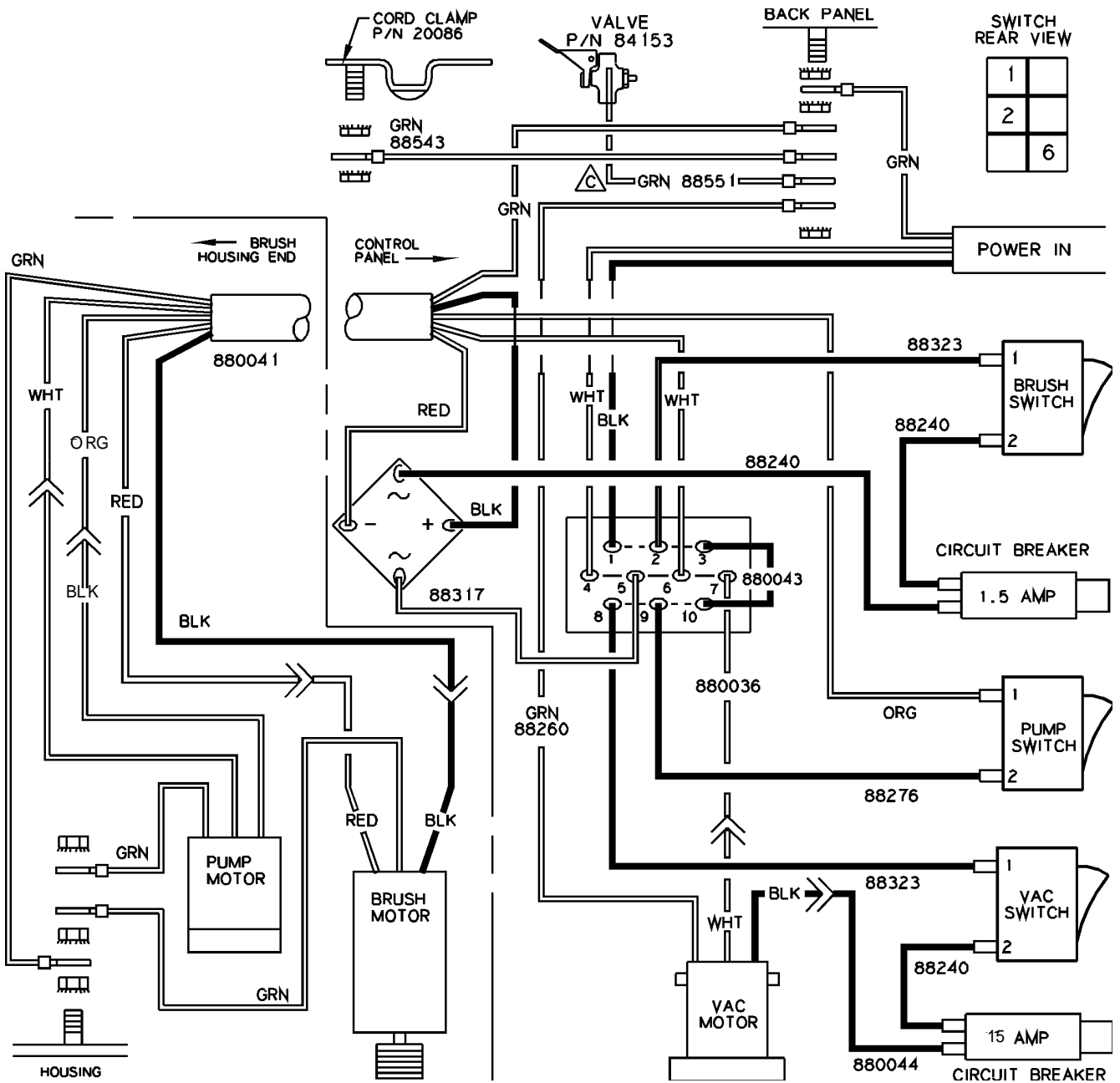
Carpet Not Getting Wet:

Solution filter screen clogged
Spray jet(s) clogged
Pump not running
Faulty pump
Solution valve adjustment
Incorrect jet orientation

Clean solution filter screen located inside lower tank near the front.
Clean or replace jets. **Do not use a wire to clean jet.**
Damaged jets will cause over-saturation.
Check for and correct any loose wires
Repair or replace
Adjust solution valve cable until valve operates when handle is pulled.
Align slit in jet parallel with center line of brush.

WIRING DIAGRAM

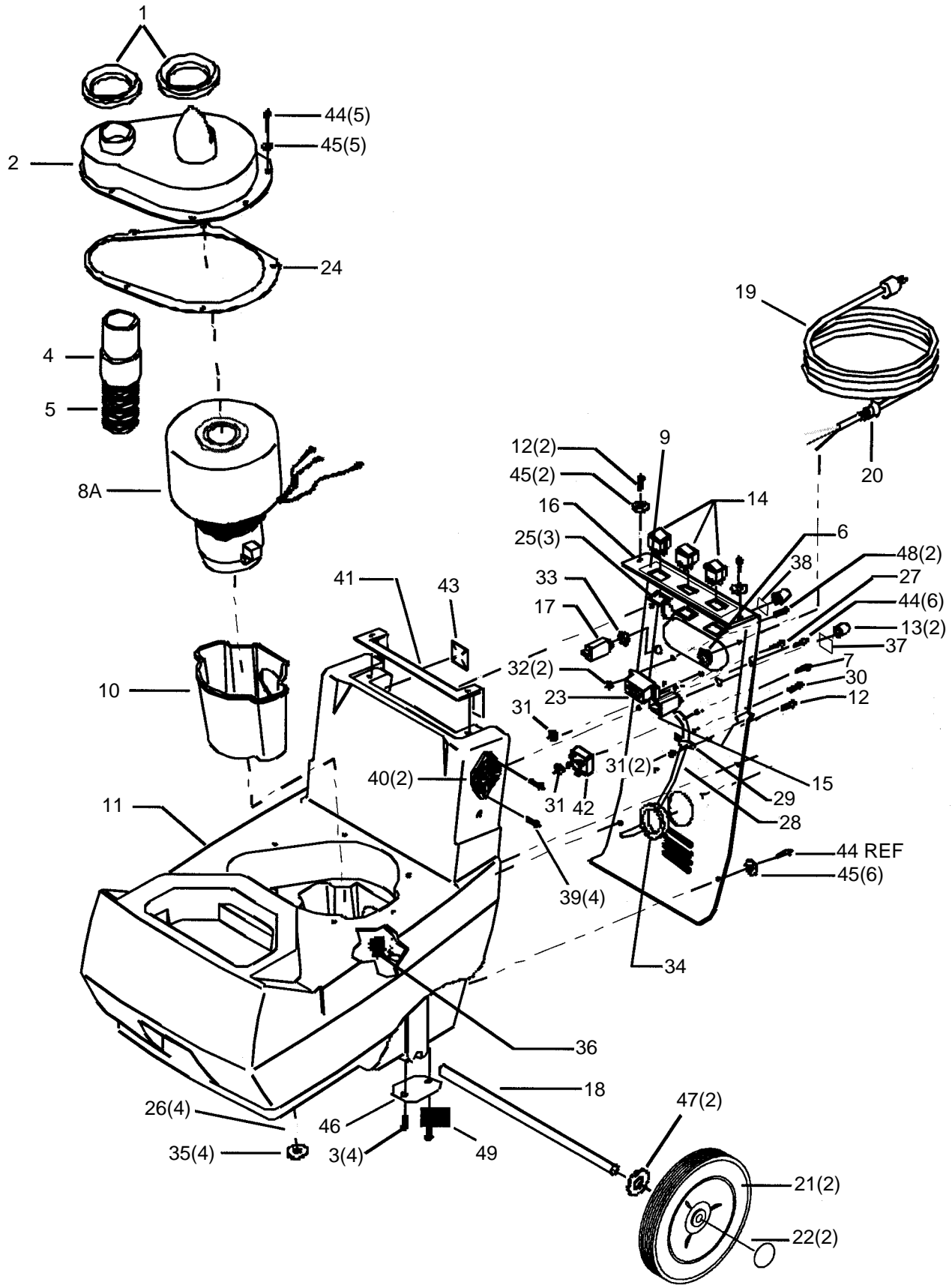
115V EXPERT



SERVICE SCHEDULE

MAINTENANCE	DAILY	WEEKLY	QUARTERLY
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check brush – should be clean with no lint or strings attached	*		
Inspect vac shoe for blockage; remove fibers with coat hanger, etc.	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Check vac motor intake filter and clean	*		
Run one gallon of water through system	*		
Clean out recovery tank and check float valve to make sure it moves freely	*		
Clean out solution tank and remove and clean vacuum intake screen	*		
Clean outside of all tanks and check for damage	*		
Run vac motor for at least one minute to allow motor to dry	*		
Store with dome off tank to allow the tank to dry	*		
Check all bearings for noise		*	
Check all gaskets for wear and leakage		*	
Check vacuum intake screen for damage; replace if necessary		*	
Check pump pressure; observe spray pattern and check with gauge if necessary		*	
Check and clean solution screen		*	
Check belts for wear and replace as necessary		*	
Check brush for wear; ensure bristles are not damaged		*	
Check cables for fraying		*	
Check the spray bar (manifold) for damage; replace if broken or bent		*	
Check condition of vac shoe and frame for damage		*	
Check overall performance of machine		*	
Check vac motor carbon brushes			*

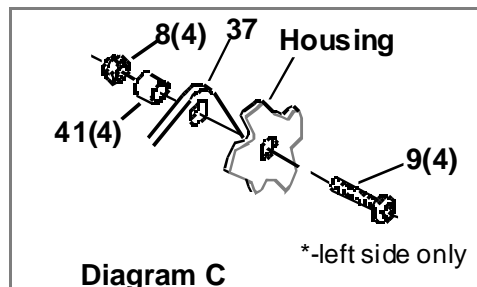
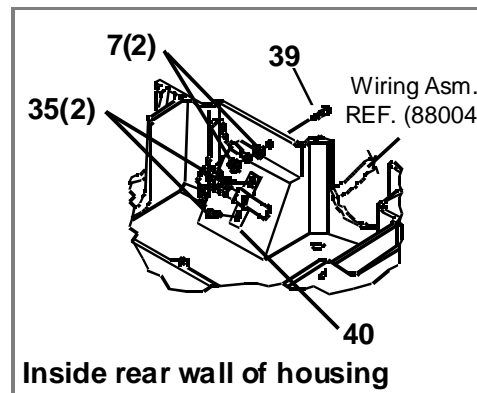
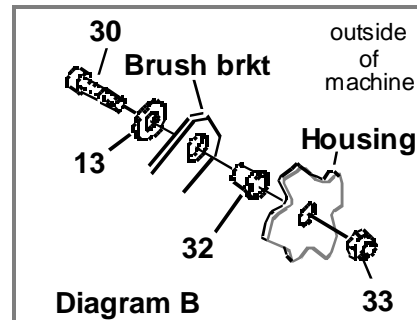
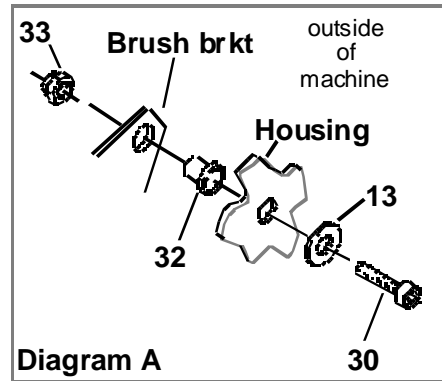
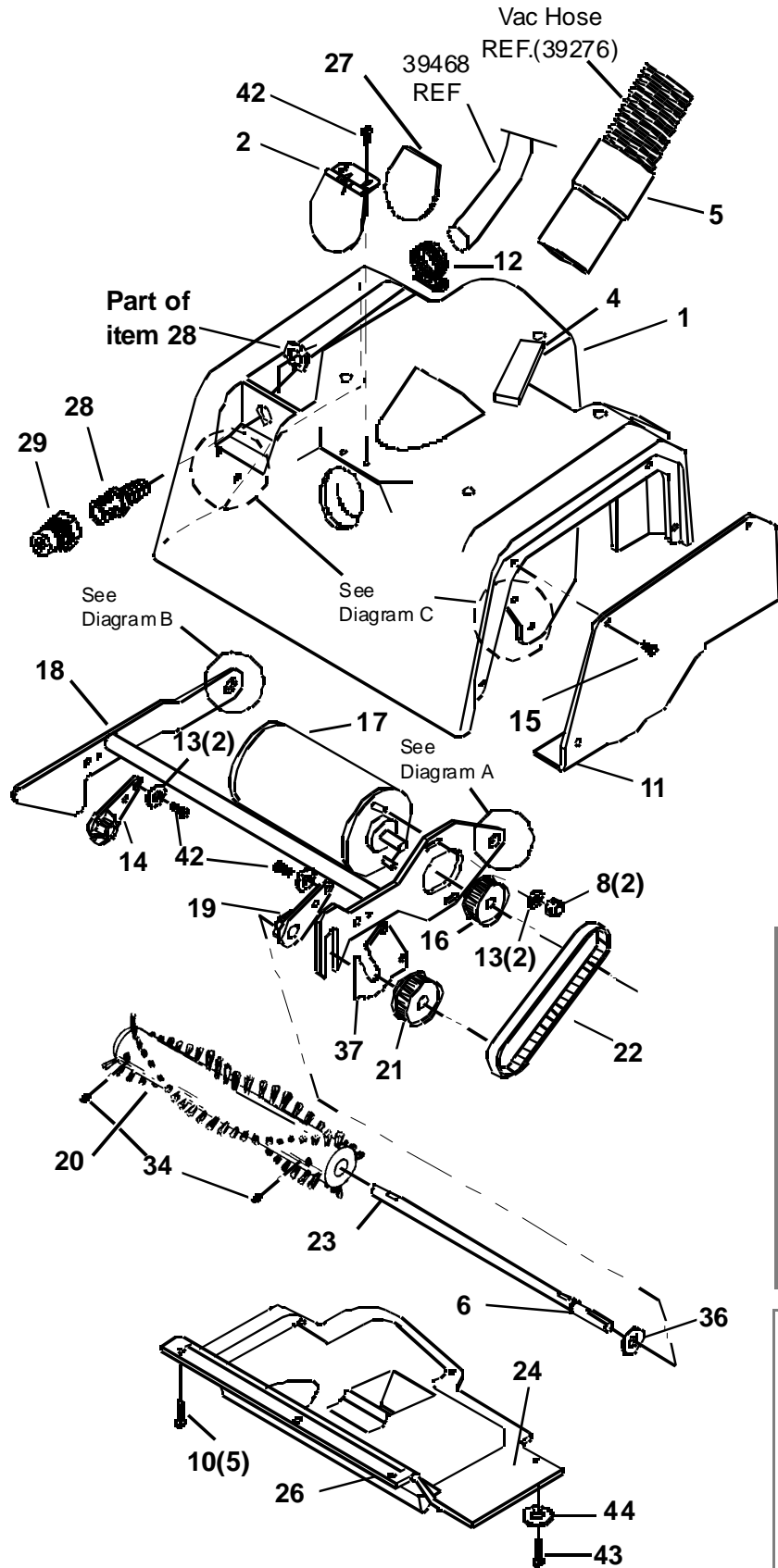
VAC/SOLUTION TANK/CONTROL PANEL



VAC/SOLUTION TANK/CONTROL PANEL PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	35175	2	GASKET, TANK TO VAC COVER		
2	27631	1	COVER, VAC MOTOR		
3	70627	4	SCR, 1/4 X 1/2 PPHST HI-LO	443236	
4	27759	1	CUFF, 1.5" BLACK HOSE		
5	39276	1	HOSE, 1.5" X 14" VAC		
6	57208	1	NUT PG11 METAL, 1.024 OD X 0.73 ID		
7	70211	1	SCR, 10-32 X 3/4 PH. BLK NYLON		
8A	53771	1	VAC MOTOR ASM, 115V EXP.		
8B	53780	1	VAC MOTOR ASM, 100V EXP.		
9	500551	1	LABEL, CONTROL PANEL MAIN		
10	27632	1	CAP, VAC MOTOR		
11	34331	1	FRAME/SOL EXP II		
12	70532	3	SCREW, 10-32 X 1/2 PHMS BLK		
13	14942	2	COVER, CIRCUIT BREAKER		
14	72151	3	SWITCH, 125V SPST		
15	14622	1	BREAKER, 1.5A CIRCUIT		
16	27787	1	COVER, REAR (CONTROL PANEL)		
17	14700	1	BREAKER, 15A 250 VAC 50 VDC	1000001018	
18	03102	1	AXLE, WHEEL		
19	23664	1	CORD ASM, 115V		
20	73710	1	STRAIN RELIEF, PG11 METRIC TRUMPET		
21	89048	2	WHEEL, 8" NON-MARKING		
22	57196	2	HUBCAP, 1/2" DIA		
23	14020	1	TERMINAL BLOCK		
24	35169	1	GASKET, VAC COVER		
25	27376	3	CLIP, SWITCH RETAINING		
26	70393	4	SET SCR, 1/4-20 X 1.25L		
27	70595	1	SCREW, 10-32 X 1 PHMS GRN		
28	880041	1	WIRE ASM, PANEL TO BASE		
29	20086	1	CLAMP, CORD		
30	70547	1	SCREW, #10-32 X 1 PPHMS BLK		
31	57104	4	NUT, #10-32 KEPS		
32	57116	2	NUT, #6-32 KEPS		
33	87100	1	WASHER, 3/8 INT. LOCK THIN		
34	35222	1	GASKET, 2 ID X 2.75 X 3/8 THK PORON		
35	35182	4	GASKET, FRAME		
36	73864	1	STRAINER, 3/8" NPT 60 MESH		
37	500226	1	LABEL, CIRCUIT BREAKER BRUSH		
38	500225	1	LABEL, CIRCUIT BREAKER VAC		
39	70517	4	SCREW, 8-32 X 1/2 FHMS SS		
40	51254	2	LOCK, HANDLE EXPERT TANK		
41	35193	1	GASKET, REAR COVER		
42	67029	1	RECTIFIER, BRIDGE		
43	50776	1	LABEL, FOR SAFETY		
44	70626	11	SCR, 10-3/4 PPHST TYPE B BLK		
45	87189	13	WASHER, .2 ID X .5 OD BLK SS		
46	62717	2	PLATE, AXLE EXP		
47	87146	2	WASHER, 1/2 ID X 1" OD X .08" NYLON		
48	70235	2	SCREW, 6-32 X 1.0 PH BLK NYLON		
49	20035	1	CLAMP, 7/16 DIA. NYLON UL	1000028686	

BRUSH/BRUSH MOTOR/FRAME

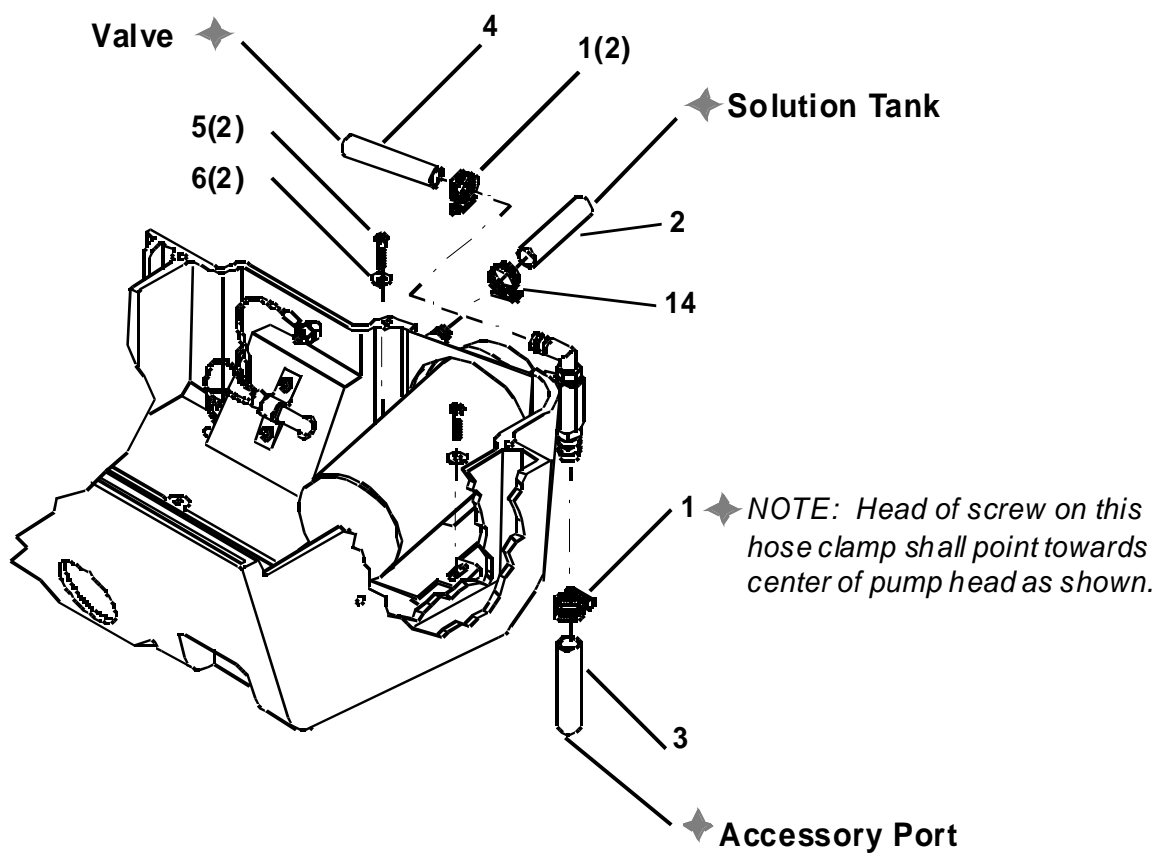
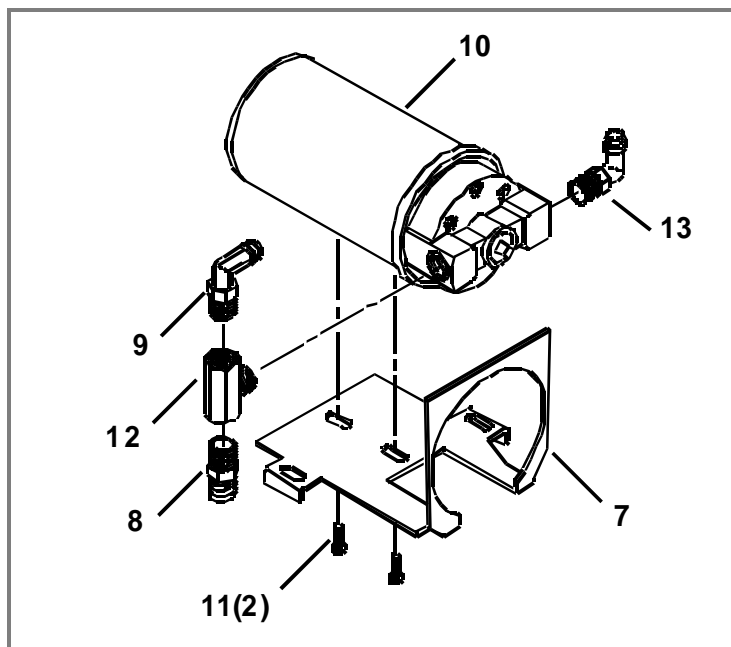


BRUSH/BRUSH MOTOR/FRAME PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	41279	1	HOUSING, BRUSH W/VAC SHOE		
2	27674	1	COVER, ACCESS PORT		
3	-	-	OPEN		
4	35195	1	GASKET, .25 X .75 X 2.00 L		
5	27759	1	CUFF, 1.5" BLACK HOSE		
6	67138	1	RING, 3/8 EXTERNAL SNAP		
7	57104	2	NUT, 10-32 W/STAR WASHER SHOE		
8	57030	6	NUT, 10-32 NYLOCK		
9	70557	4	SCR, 10-32 X 1" FHMS BLK		
10	70532	5	SCR, 10-32 X 1/2 PPHMS BLACK		
11	27636	1	COVER, BELT		
12	20016	1	CLAMP, 1/4 ID HOSE		
13	87139	4	WASHER, 3/16 FLAT		
14	09113	1	BEARING, RIGHT		
15	70740	3	SCR, 10-32 X 1/2 PTHMS BLK		
16	64085	1	PULLEY, MOTOR		
17	53608	1	MOTOR ASM, BRUSH DRIVE		
18	140036	1	BRACKET ASM, BRUSH MOTOR		
19	09114	1	BEARING, LEFT		
20	140040	1	BRUSH		
21	64086	1	PULLEY, BRUSH		
22	11039	1	BELT, BRUSH DRIVE		
23	03084	1	AXLE, BRUSH		
24	35176	1	GASKET, BOTTOM COVER		
25	-	-	OPEN		
26	27639	1	COVER, BOTTOM		
27	35171	1	GASKET, ACCESS PORT COVER		
28	140087	1	BULKHEAD, 1/4 MPT X 1/4 BARB		
29	56012	1	NIPPLE, 1/4 FPT QD		
30	70303	2	SHOULDER BOLT, 1/4 OD X 5/8 L		
31	-	-	OPEN		
32	09117	2	BEARING, BRUSH BRACKET		
33	57018	2	NUT, 10-24 HEX LOCK		
34	70578	2	SCREW, 8-32 X 1" FHMS SS		
35	70031	2	SCR, 10-32 X 1/4 PPHMS		
36	87003	1	WASHER, 3/8 ID X 7/8 OD SS		
37	62556	1	PLATE, GUARD ON LEFT SIDE ONLY		
38	-	-	OPEN		
39	70595	1	SCR, 10-32 X 1.0 PHMS GRN		
40	20086	1	CLAMP, CORD		
41	73781	4	HOSE, 5/16 X 3/16 ID CLR VINYL		
42	70351	4	SCR, 10-32 X 3/8 HHTR W/STAR		
43	70604	1	SCR, 10-32 X 5/8 PHMS BLK		
44	87189	1	WASHER, .2 ID X .5 OD BLK SS		

NOTE: The left and right sides of the machine are assigned as if standing behind the machine in the operator's position.

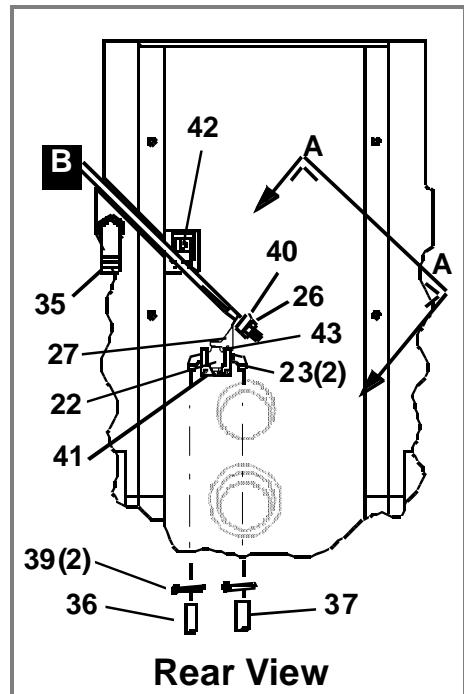
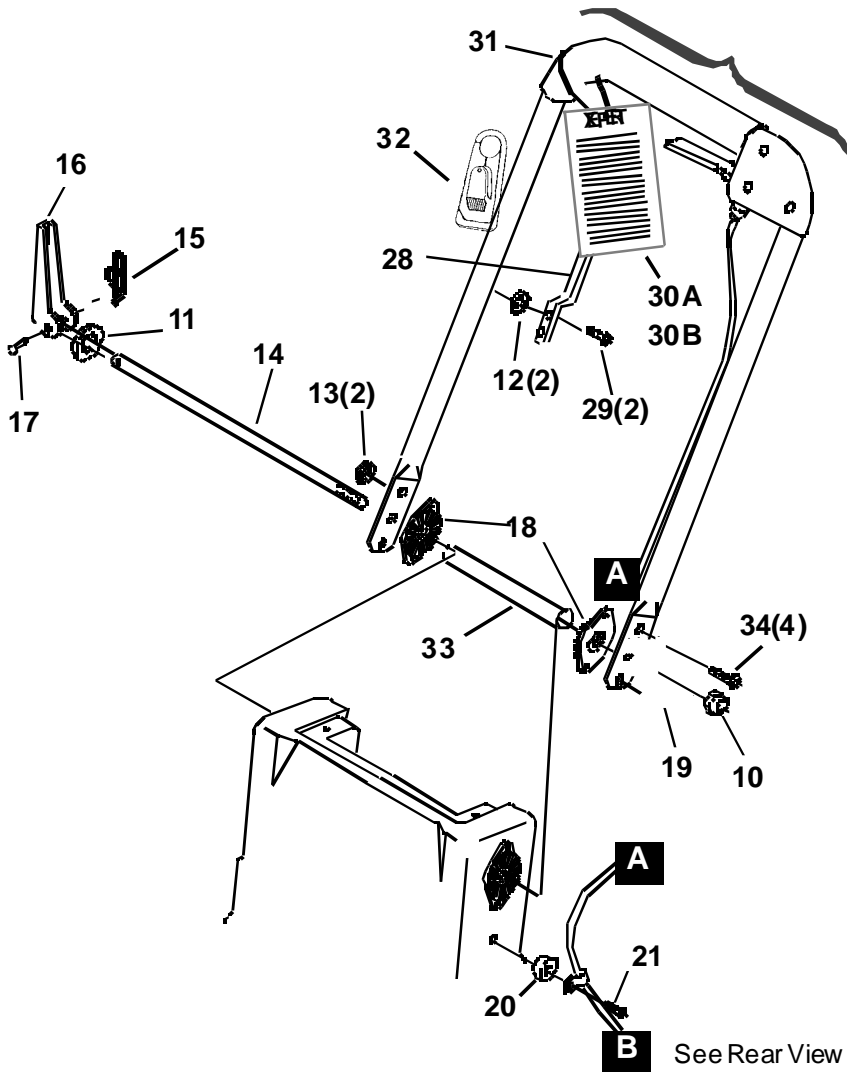
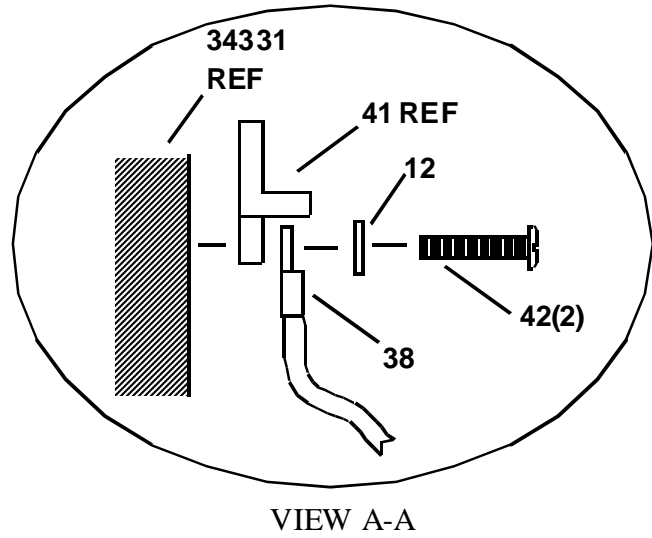
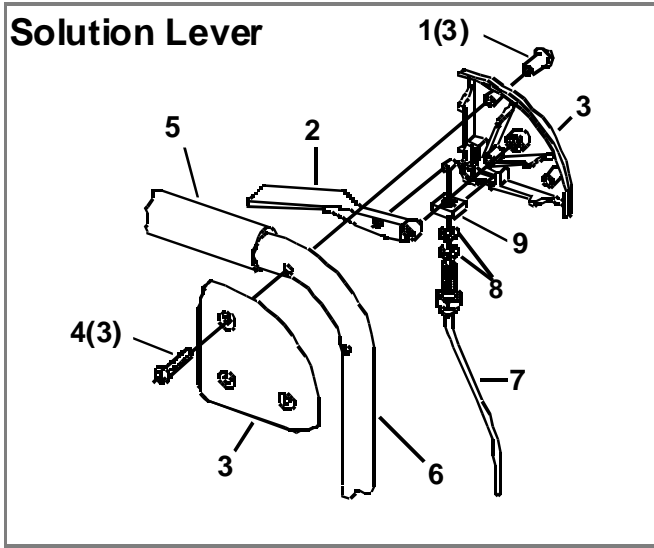
PUMP ASSEMBLY



PUMP ASSEMBLY PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	20016	2	CLAMP, 1/4 ID HOSE		
2	39510	1	HOSE, 3/8 WIREBOUND X 3"		
3	39468	1	HOSE, 1/4 NYLOBRAID X 11.5"		
4	39508	1	HOSE, 1/4 NYLOBRAID X 15"		
5	70484	2	SCR, 10-32 X 5/8 PPHMS SS		
6	87016	2	WASHER, #10 LOCK EXT. STAR		
7	140034	1	BRACKET, PUMP		
8	40009	1	HOSEBARB, 1/4 MPT X 1/4		
9	40065	1	HOSEBARB, 1/4 MPT X 1/4 X 90°		
10	65164	1	PUMP ASM, EXPERT		
11	70581	2	SCR, 10-32 X 3/8 HHTFW/WASH		
12	78024	1	TEE, 1/4 BRANCH		
13	40033	1	HOSEBARB, 1/4 MPT X 3/8 90°		
14	20042	1	CLAMP, 3/8 (D-SLOT)		

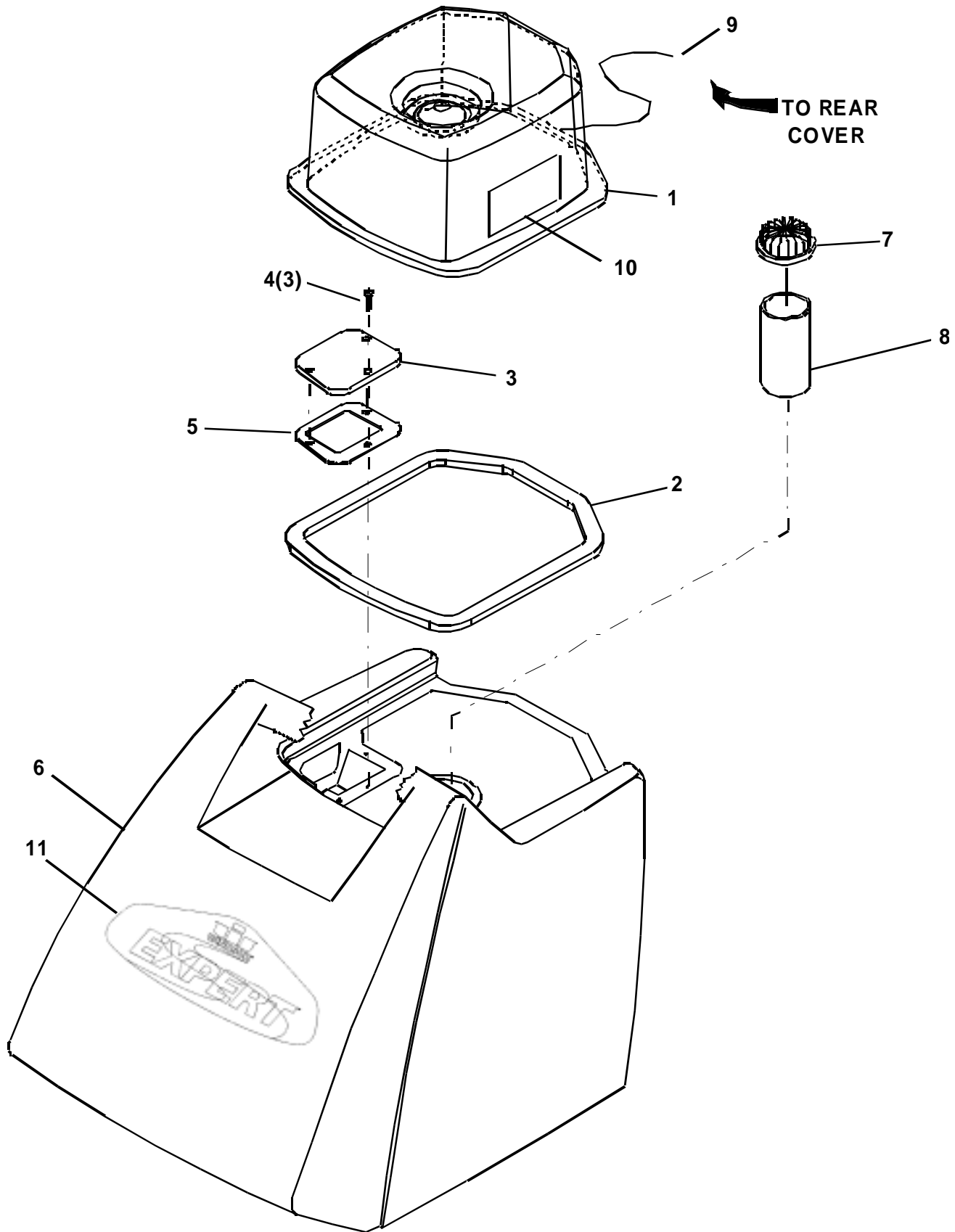
SOLUTION LEVER/MAIN HANDLE



SOLUTION LEVER/MAIN HANDLE PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	57238	3	NUT, 10-24 JOINT CONNECTOR BLK		
2	51251	1	LEVER, SOLUTION		
3	41302	2	HOUSING, SOLUTION LEVER		
4	70537	3	SCR, 10-24 TRUSS HEAD BLK		
5	36046	1	GRIP, HANDLE X 13"		
6	38247	1	HANDLE		
7	27785	1	CABLE, VALVE SOLUTION 27-1/2 LG		
8	87029	1	WASHER, 5/16 FLAT SAE	441847	WAS 57138 (QTY 1)
9	57234	1	NUT, 3/8-16 SQUARE		
10	57022	1	NUT, 3/8-16 HEX NYLOCK		
11	87080	1	WASHER, .52 1.25 FLAT PLTD		
12	87016	3	WASHER, #10 LOCK		
13	87139	2	WASHER, 3/16 FLAT USS	441847	(QTY WAS 3)
14	67397	1	ROD, HANDLE ADJUSTMENT EXP II		
15	80604	1	RING, RUE COTTER 1/4"		
16	51142	1	LEVER, HANDLE LOCK		
17	66133	1	PIN, CLEVIS		
18	51184	2	LOCK, HANDLE ADJUSTMENT		
19	62716	1	PLATE, STOP EXPT		
20	73735	1	SPACER, 1.0 OD X .26 ID X 1 BLK NYL		
21	70556	1	SCREW, 1/4-20 X 1.5 SS		
22	84153	1	VALVE, KINGSTEN		
23	40065	2	HOSEBARB, 1/4 MPT X 1/4 90°		
24	-	-	OPEN		
25	-	-	OPEN		
26	57018	1	NUT, 10-24 LOCK		
27	89144	1	WELDMENT, LEVER VALVE EXP		
28	41144	1	HOOK, CORD		
29	70361	2	SCR, #10-32 X 1/2 PHTR		
30A	50729	1	CARD, INSTRUCTION		
30B	50765	1	CARD INSTRUCTION EXP J		
31	27417	1	CORD, 1/8 X 12"		
32	73169	1	STRAIN RELIEF, CORD HOOK		
33	99620	7"	HEAT SHRINK, 3/8 ID UL/CSA		
34	70031	4	SCR, 10-32 X 1/4 PPHMS PLTD		
35	40043	1	HOSEBARB, 3/8 MPT X 3/8 90° NYLON BLK		
36	39508	1	HOSE, 1/4 NYLOBRAID 15"		
37	39507	1	HOSE, 1/4 NYLOBRAID 17"		
38	88551	1	WIRE ASM, 19" GRN/18 78008 X 78008		
39	20016	2	CLAMP, 1/4 ID HOSE		
40	73866	1	SPACER, 1/2 OD X .219 ID X 1/2 NYLON		
41	140308	1	BRACKET, VALVE EXPERT		
42	70626	3	SCR, 10-3/4 PPHST TYPE B BLK		
43	66086	1	PIN, ROLL 3/16 X 5/8		

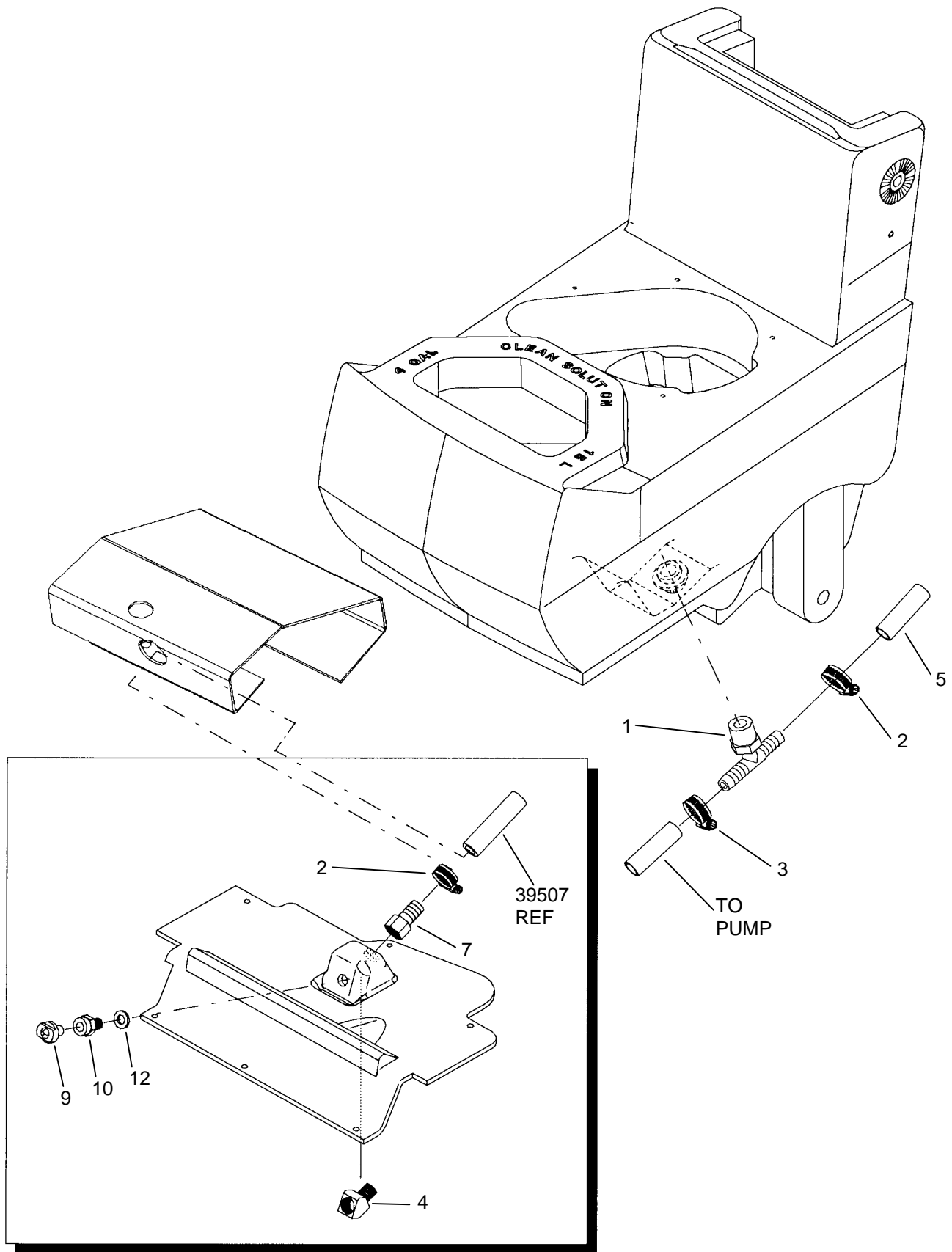
RECOVERY TANK



RECOVERY TANK PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	28050	1	DOME		
2	35178	1	GASKET, DOME		
3	62465	1	PLATE, COVER		
4	70114	3	SCR, 10-32 X 3/4 POLYFAST		
5	35167	1	GASKET, COVER		
6	75212	1	TANK, RECOVERY		
7	34140	1	FILTER, VAC INTAKE		
8	78162	1	TUBE, 1.5 PVC X 4.88"		
9	27417	1	CORD, 1/8 X 1/2"		
10	500009	1	LABEL, WARNING		
11	500016	1	LABEL, EXPERT		

SOLUTION PLUMBING/SPRAY JET



SOLUTION PLUMBING/SPRAY JET PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	40069	1	HOSEBARB, 3/8 NPT X 3/8 TEE		
2	20016	2	CLAMP, 1/4 ID HOSE		
3	20042	1	CLAMP, 3/8 HOSE		
4	31028	1	ELBOW, 1/8 45° STREET		
5	39509	1	HOSE, 3/8" CLEAR X 15.5"		
6	62800	1	PLATE, GUARD EXPERT		
7	40064	1	HOSE BARB, 1/8" FPT X 1/4"		
8	-	-	OPEN		
9	44066	1	JET, BRASS MINI-QUICK		
10	44052	1	JET BODY, MINI-QUICK W/SEAL		
11	-	-	OPEN		
12	87185	1	WASHER, 3/8 SEALING X 3/4 OD		

SPARE PARTS AND ACCESSORIES

PART NO.	DESCRIPTION
11039	BELT, BRUSH DRIVE
35178	GASKET, DOME
35171	GASKET, ACCESSORY PORT
140040	BRUSH, EXP
44066	JET, 11004 BRASS MINI-QUICK
44051	JET SEAL, MINI-QUICK
44052	JET BODY, MINI-QUICK W/SEAL
35175	GASKET, TANK TO VAC COVER
50729	INSTRUCTION CARD
09114	BEARING, LEFT
09113	BEARING, RIGHT
64085	BRUSH MOTOR PULLEY
64086	BRUSH PULLEY
35176	GASKET, BOTTOM COVER
73169	STRAIN RELIEF, CORD HOOK
34140	FILTER, VAC INTAKE

ACCESSORIES

SW – STANDARD WAND

SPW – STANDARD WAND PROFESSIONAL

DHT – DELUXE HAND TOOL

DHTK – DELUXE HAND TOOL KIT

DDH – DOUBLE DRY HAND



WINDSOR INDUSTRIES

New Machine Warranty

Limited Warranty

Windsor Industries, Inc. warrants new machines against defects in material and workmanship under normal use and service to the original purchaser. Any statutory implied warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. Windsor will not be liable for any other damages, including but not limited to indirect or special consequential damages arising out of or in connection with the furnishing, performance, use or inability to use the machine. This remedy shall be the exclusive remedy of the buyer. The warranty period is subject to the conditions stated below.

6 / 3 / 1 Warranty: 6 Years Polyethylene (PE) Housings, 3 Years Parts, and 1 Year Service Labor

Subject to conditions outlined below, Windsor Industries warrants rotationally molded PE housings and parts on all of its machines to be free from defects in material and workmanship, under normal use and service for six (6) years to the original owner.

Under this warranty we guarantee the performance of non-polyethylene parts and components to be free from defects and for up to three (3) years to the original end user. Parts replaced or repaired under this warranty are guaranteed for the remainder of the original warranty period. (See table below)

Service labor charges are covered for up to one (1) year from the date of purchase through authorized Windsor service provider. No travel coverage is extended for cord-electric models. See table below for each general product model warranty coverage.

Product	PE Housing & Parts	Non- PE Parts	Service Labor	Travel
Rider Scrubbers	6 years	3 years	1 years	6 Months
Rider Sweepers	6 years	1 year	1 years	6 Months
Walk Behind Scrubbers	6 years	3 years	1 years	6 Months
Walk Behind Sweepers	6 years	1 year	1 years	6 Months
Extractors	6 years	3 years	1 years	-
Polishers / Elec. Burnishers / GH	6 years	3 years	1 years	-
Wide Areas Vacuums	6 years	3 years	1 years	-
VacPak Vacuums	6 years	1 year	1 year	-
Air Movers / Dri-matic / TITAN™	1 year	1 year	1 year	-
Propane Burnishers / Strippers	-	2 year	1 year	-
Tracer/Flex Sweepers/Scrubbers	6 years	2 year	6 months	90 days

VERSAMATIC®	Brush motor, Vacuum motor, Belts – 3 years	All other parts – 1 year
SENSOR®	Vacuum motor, Belts – 2 years	All other parts – 1 year

Product exceptions and Exclusions:

- Extractor brush motors, pump motors, **ALL** PC boards and electronics, **ALL** Vacuum motors (other than VERSAMATIC® and SENSOR®), **ALL** pumps, and FLEXSOL™ diaphragms carry a one (1) year parts and service labor warranty.
- The Onan® engines have three (3) year manufacturer’s warranty. The Honda® and Kawasaki® engines have two (2) year manufacturer’s warranty. **NOTE:** The engine warranty is administered through the engine manufacturer and must be repaired at an authorized service center.

Normal wear items and accessories including, but not limited to, belts, brushes, capacitors, carbon brushes, casters, clutches, cords, filters, finishes, gaskets, hoses, light bulbs, rectifiers, switches, squeegees, bearings, pulleys, relays, actuating cables, wheels, tires, propane tanks, and batteries will be warranted for manufacturing defects for 90-days from the purchase date.

The warranty commences on the purchase date by the original end user from an authorized Windsor agent, subject to proof of purchase. The Machine Registration Card must be completed and returned immediately at the time of purchase. If proof of purchase cannot be identified, the warranty start date is 90 days after the date of sale to an authorized Windsor distributor. Parts replaced or repaired under warranty are guaranteed for the remainder of the original warranty period.



WINDSOR INDUSTRIES New Machine Warranty

90 Day Warranty Extension Available

Upon receipt of the Machine Registration Card, Windsor will extend by 90 days, from the date of purchase, all items included under the one-year provision. This applies only to one-year items and does not include 90-day wear items.

This Warranty Shall Not Apply To:

1. Any product that has been subject to abuse, misuse, neglect or unauthorized alteration (including the use of incompatible or corrosive chemicals or overloading of capacity).
2. Products that have experienced shipping or freight damage.
3. Repairs necessary to correct any failure due to improper pre-delivery service and inspection by the selling dealer.
4. Excessive time for cleaning units in preparation for repair.
5. Any repairs resulting from poor initial service work or improper diagnosis.
6. Tune-up parts such as plugs, plug wires and condensers.
7. Any design alterations performed by an organization not authorized or specified by Windsor.
8. Battery and charger warranties are handled directly with the manufacturer (Trojan® batteries and Lester® chargers).
9. High-pressure washing.
10. Electrical components exposed to moisture.

If difficulty develops during the warranty period, contact the authorized Windsor agent from whom the product was purchased. Windsor Industries, Inc. may elect to require the return of components to validate a claim. Any defective part to be returned must be shipped freight prepaid to an authorized Windsor Distributor/Service Center or to the Windsor factory.

Use Of Parts Not Approved By Windsor Industries, Inc. Will Void All Warranties

This warranty is valid only for all products sold after July 1, 1995. A product sold before that date shall be covered by the limited warranty in effect at the date of sale to the original purchaser.