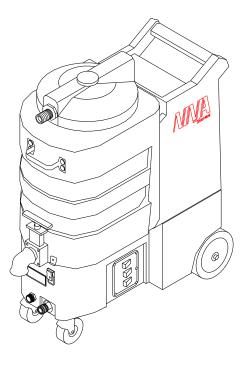




PORTABLE EXTRACTOR

MODELS: 10070610



Operating Instructions

Read these instructions before using the machine

MACHINE DATA LOG/OVERVIEW

Model:		
Date of Purcha	ase:	_
Serial Number		
Sales Represe	entative:	
Address:		
Phone Numbe	r:	
	Copyright 2008 Windsor Industries, Printed in USA	

OVERVIEW

The Ninja is an electric powered carpet extractor intended for commercial use. This appliance applies a cleaning solution to the carpet and then vacuums the soiled water back into the recovery tank.

TABLE OF CONTENTS

Machine Data Log/Overview	2
Table of Contents	3

HOW TO USE THIS MANUAL

How To Use This Manual.....1-1

SAFETY

Important Safety Instructions	2-1
Hazard Intensity Level	2-2
Safety Label Location	
Grounding Instructions	

OPERATIONS

Technical Specifications	3-1
Controls	3-2
Machine Operation	3-3
Pre-Run Machine Inspection	3-3
Equipment Set-up	3-3
Auto Fill	3-3
Auto Dump	3-3
Emptying & Cleaning Tanks	3-4

MAINTENANCE

Daily Maintenance	4-1
Periodic Maintenance	
Monthly Maintenance	4-1
Semi-annually	4-1
Lubrication	4-1
Storage	4-1
Vacuum Motor Replacement	4-2
Solution Pump Replacement	4-2
Pump Replacement Kits	4-3
Machine Troubleshooting	4-4

GROUP PARTS LIST

Frame	5-1
Controls	5-3
Pump	5-5
Pumpout	
Recovery and Solution Tank	
Vacuum Motor	
Wiring Group	5-13
Warranty	

HOW TO USE THIS MANUAL

This manual contains the following sections:

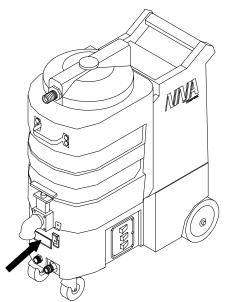
- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

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 to the inside of the front cover of this manual.

MODEL	
DATE OF PURCHASE	
SERIAL NUMBER	
SALES REPRESENTATIVE #	

The model and serial number of your machine is on the front of the Frame.



The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards are 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:

- Maintenance
- Lubrication
- Vacuum Motor Replacement
- Solution Pump Replacement
- Troubleshooting

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.
- **PRV NO.** reference number.
- **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.
- 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.

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:

A WARNING

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:

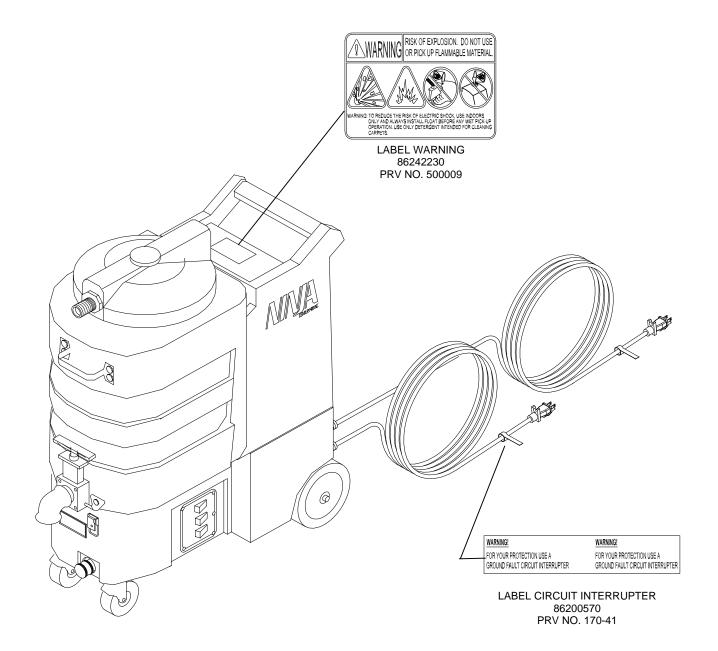
DO NOT OPERATE MACHINE: Unless Trained and Authorized. Unless Operation Guide is Read and understood. In Flammable or Explosive areas. In areas with possible falling objects.

WHEN SERVICING MACHINE:

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

SAFETY LABEL LOCATION

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



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.

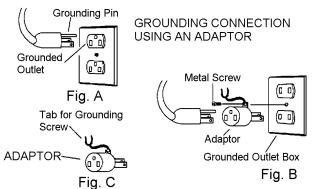
EXTENSION CORDS:

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.

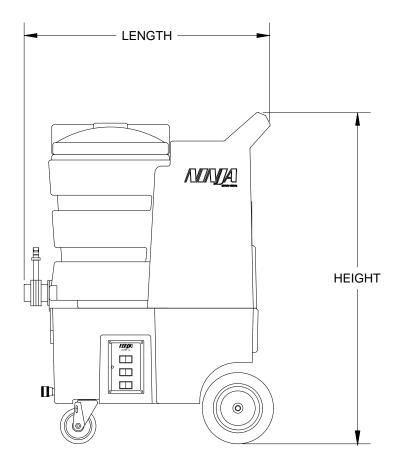


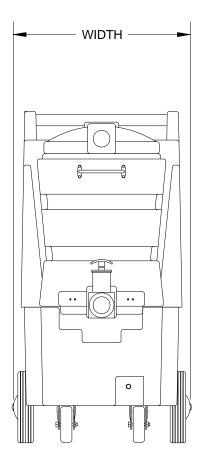
Note: Adaptors are not allowed in Canada.

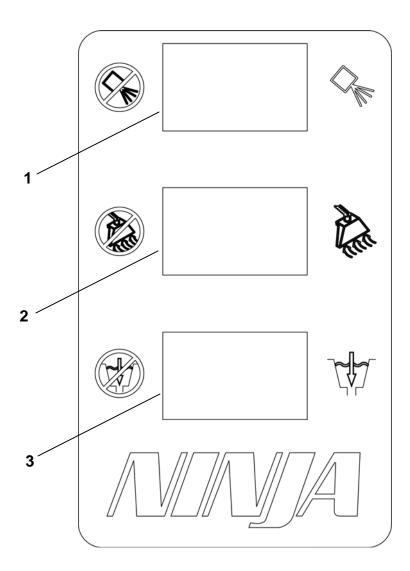
Improper connection of the equipmentgrounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have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

TECHNICAL SPECIFICATIONS

ITEM	MEASURE
ELECTRICAL	115 Volt, 60 hz
Vaccum Motor	7.2, 3 stage
Solution Pump	1200 psi
Solution Capacity	10 gal (38 L)
Recovery Capacity	8 gal (30L)
Weight- Empty	147 lbs (67 kg)
Weight-Full Solution	222 lbs (101 kg)
Height	36 inches (91.4 cm)
Length	29 inches (73.6 cm)
Width	19.5 inches (49.5 cm)
Power cord	(2) 22 feet (6.71 m)







- **1.** Pump Switch
- 2. Vacuum Switch
- 3. Sump Switch

MACHINE OPERATION

PRE-RUN INSPECTION

- 1. Check all fittings and connectors for proper assembly.
- 2. Check all hoses for leaks. Repair or replace any damaged hoses.
- **3.** Check power cord(s) for any damage. If damaged, replace.

EQUIPMENT SET-UP

- 1. Plug power cord from machine into properly grounded wall outlet.
- **2.** Turn vacuum motor switch on and off to make sure there is electrical power at machine.
- **3.** Connect vac hose to machine. Slide the swivel cuff over the outlet on the tank.
- Connect the hose to your machine and wand. Pull back the knurled collar on the quick disconnect coupler and push onto the connection on the chassis. To avoid leaks, check to be that a positive connection was made.
- 5. Using a clean container, fill the solution tank with clean hot water. Mix in a non-foaming cleaning concentrate for use in hot water extraction machines, following the manufacture's instructions printed on container.

NOTE: When using a powder cleaner, pre-mix with hot water in a clean container before adding to the solution tank.

- **6.** Turn pump and vacuum switch(s) to the on position.
- 7. Start cleaning.

AUTO FILL

Connect standard garden hose from faucet to the rear of the solution tank. Turn on water and allow tank to fill check for leaks.

AUTO DUMP

Connect standard garden hose to the front of the machine and run to any sanitary sewer. Check inside the recovery tank to make sure the float switch is not obstructed.

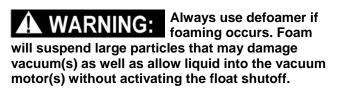


The auto dump (sump pump) must never be run

dry. The float switch in the recovery tank will prevent this. Make sure the drain screen in the recovery tank is kept clean.

MACHINE OPERATION

EMPTYING AND CLEANING



- 1. Before proceeding, make certain that the nozzle is functioning properly.
 - a. To check, hold the wand about one foot above the surface to be cleaned and open the wand valve. A full spray should be observed from the nozzle.
 - **b.** If the nozzle is not showing a full spray pattern, adjust nozzle for proper pattern, clean, or replace nozzle.
- 2. Normally, chemical is applied on the push stroke of the wand when cleaning. Vacuuming is done on the pull stroke. For heavily soiled carpets the wand may be used in a scrubbing manner, applying chemical in both the push and pull stroke.

- **3.** When cleaning, keep the working opening (wand mouth) flat on the surface being cleaned. Keep the wand moving when the valve is open.
- 4. The shutoff float inside the vacuum tank will impede the vacuum flow when the vacuum tank is full.

When this occurs, empty the vacuum tank by opening the dump valve and dispose of the waste in a proper manner.

5. Once the vacuum tank has been emptied, you may once again proceed with cleaning

NOTES

MAINTENANCE

DAILY MAINTENANCE



Unplug power cords before servicing or making any repairs.

- 1. Flush the entire system, including floor tool, hand tool, etc., with 1 to 3 gallons of clean, hot water.
- 2. Vacuum out the solution tank.
- **3.** 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. Wastewater should be disposed of properly.
- 4. Occasionally check filter screen at the bottom of the solution tank and rinse clean with hot water if necessary.
- **5.** Inspect hoses for wear. Frayed or cracked hoses should be replaced to avoid vacuum or solution pressure loss.
- 6. Inspect power cord for wear or damage. This cable will lie on wet carpet. To prevent electrical shock replace cords that are frayed or have cracked insulation immediately.
- 7. Clean all dirt and obstructions from drain valve and gaskets to prevent possible leakage and premature wear.
- 8. Run clean water through solution pump when work is complete.
- **9.** Empty both tanks and rinse, run vacuum (s) for at least one minute to dry motor(s).
- **10.** Store with access covers removed to allow tanks to dry.



DO NOT attempt to repair hose! Repairing result in severe burns

high-pressure hoses may result in severe burns and serious injury.

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, turning pump switch on/off several times, flush with clean water. This will prevent build-up of alkaline residue in the system.
- 2. Check hoses for wear, blockages, or damage. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure.
- 3. Check all handles, switches, knobs, electrical cables and connections on your machine for damage. If the cable insulation is broken or frayed, repair or replace it immediately. Don't take chances with electrical fire or shock.
- 4. Clean out solution tank. Remove and clean solution screen.
- 5. Clean outside of all tanks and check for damage.

MONTHLY MAINTENANCE

- 1. Check all bearings for noise and wear.
- 2. Check all gaskets for wear and leakage.
- **3.** Check pump pressure; observe spray pattern and check gauge if necessary.
- 4. Check overall performance of machine.

SEMI-ANNUALLY

1. Check vacuum motor brushes.

LUBRICATION

For pressure regulator and pump cam lubrication, use a light silicone lubricant which will not damage orings. A small tube (86246790 - PRV NO. 51391) is supplied with your machine.

STORAGE

Thoroughly clean machine if it is to be stored. You must protect this machine from freezing while in storage.

Make sure both recovery and solution tanks are empty and wipe dry.

MAINTENANCE

A 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.** Locate the vacuum motor wires and disconnect at the connector.
- 4. Remove the vacuum motor.
- 5. Reverse process to install vacuum motor.

SOLUTION PUMP REPLACEMENT

- 1. Turn off all switches and unplug the machine.
- 2. Remove recovery tank.
- 3. Remove solution hoses from fittings in pump.
- **4.** Remove the screws that fasten the pump to the frame.
- 5. Reverse process to install pump.

VACUUM MOTOR CARBON BRUSH REPLACEMENT



The green ground wire must be attached for

safe operation.

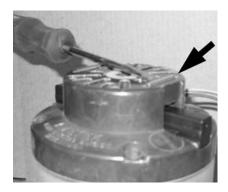
1. Remove retaining clip with flat tip screw driver.



2. Replace carbon brush (A), by disconnecting at the terminal connection (B).



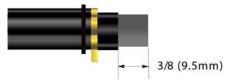
3. Insert carbon brush into vac motor.



4. Replace clip and press down until it locks in place.

Important:

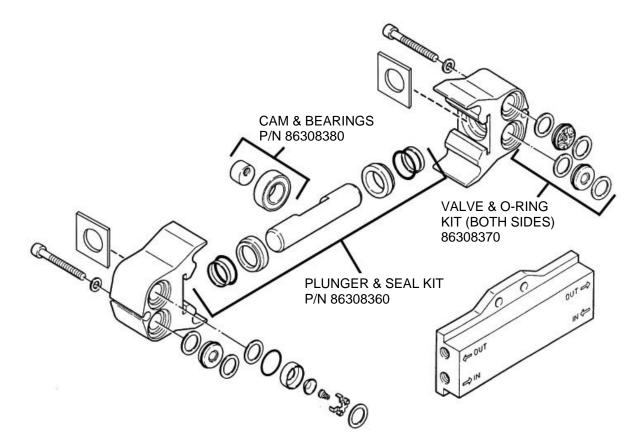
These brushes wear quicker as the length shortens due to increased heat. Spring inside brush housing will damage motor if brushes are allowed to wear away completely.



Periodically check the length of the carbon brushes. Replace both carbon brushes when either is less than 3/8" (9.5mm) long.

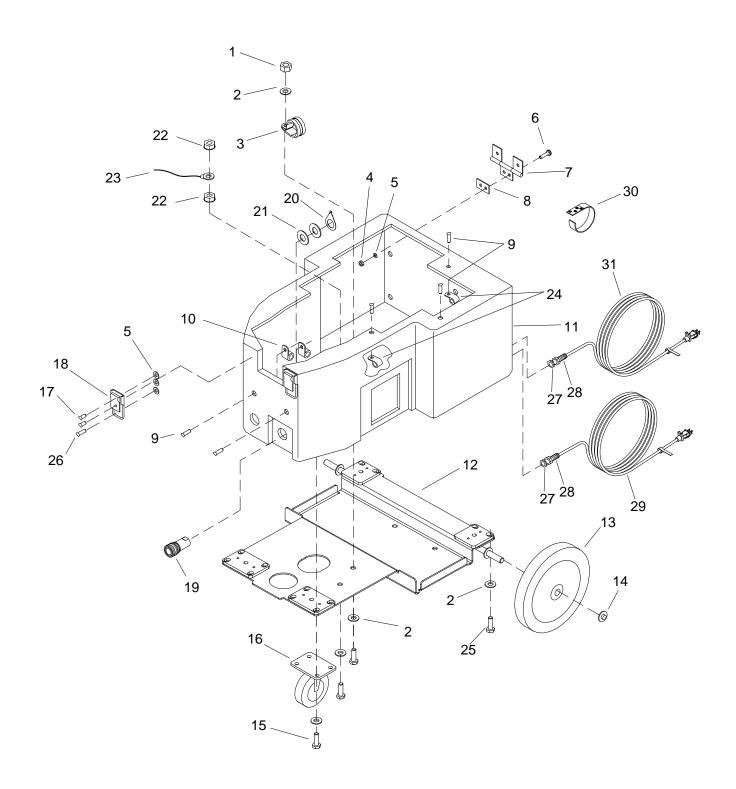
MAINTENANCE

PUMP REPLACE KIT 1200 PSI



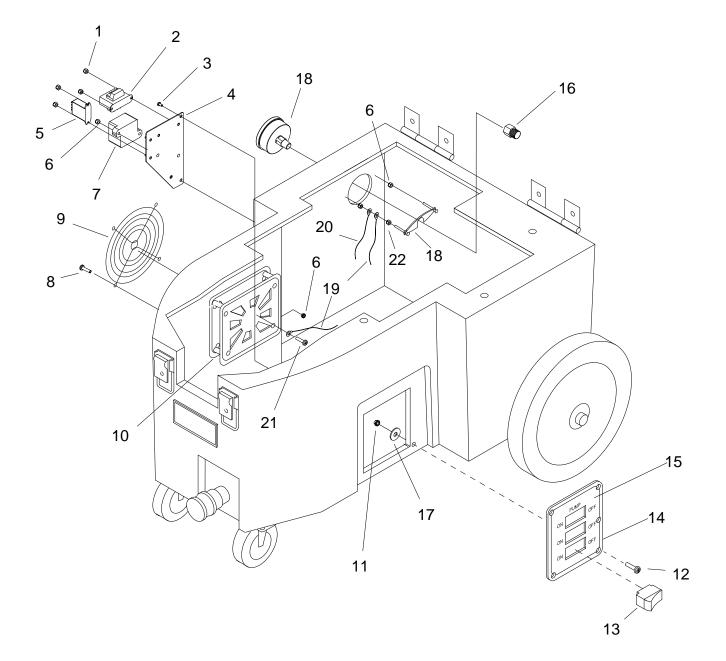
TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION		
Loss of Power	Dead electrical circuit	Check building circuit breaker or fuse box.		
Eoss of Powel	Faulty power cord	Replace		
	Equipment not grounding	Follow grounding instructions exactly		
Electrical shock	Receptacle not grounded	Contact an electrician to check building's wiring		
	Internal wiring problem	Have a trained service technician check machine's wiring		
Vac motor speed varies	Worn motor brushes	Replace		
or doesn't run	Motor worn out	Replace		
	Faulty switch	Replace		
	Loose vacuum dome	Center and seal dome over tank		
	Crack in dome or poor joint	Replace		
	Lint or dirt clogging vacuum screen	With power off clean screen		
Loss of vacuum	Loose cuffs on vacuum hose	Tighten cuffs turning counterclockwise		
	Vac motor seals leaking	Replace		
	Floor tool vac chamber clogged	Wash out with hose. Pick lint out with a wire		
	Vac motor, hose, or dome gasket	Replace		
	Pump inlet screen plugged	Clean inlet screen		
Pump runs no solution	Pump air locked	Press trigger to open valve on cleaning wand to relieve air		
	Internal or external solution line damaged and leaking	Replace		
	Internal pump components wearing out	Replace, see pump kit components		
Pump runs, loss of pressure	Note: Operation of pump us will cause pump to cavitate of components. Check valves in pump	ing a wand or hand tool with an orifice of less than .06 or pulsate and could result in premature wear of pump		
	head for leaks.	Replace or clean valves.		
Pump will not run	Unit not plugged in	Connect unit to 3 prong grounded outlet		
	Loose wiring Corrosion on fittings.	See dealer Clean with steel wool. Soak in acetic acid (white		
Solution hose fitting hard to connect	Pressure locked.	vinegar). Lubricate lightly with silicone base lubricant. Unscrew and push in unloader knob. Connect hoses before turning on pump		
	Circuit breaker tripped.	Reset breaker on motor.		
Carpet not getting clean	Severe soil conditions	Make several passes at right angles to each other. Use a pre-spray.		
Carpet too wet Over saturation		Adjust solution pressure to lower settings. Make several passes without spray		
	Leaving carpet too wet	Check for loss of vac pressure		
Corpot browning	Too much chemical	Check label for correct solution concentration		
Carpet browning	Light carpet with no brown prevention	Go over carpet with browning preventative.		
	Solution hose connection	Check for positive connection		
Solution not flowing	Faulty pump	Repair or replace		
properly	Faulty floor tool valve	Repair or replace		
	Faulty pump switch	Repair		



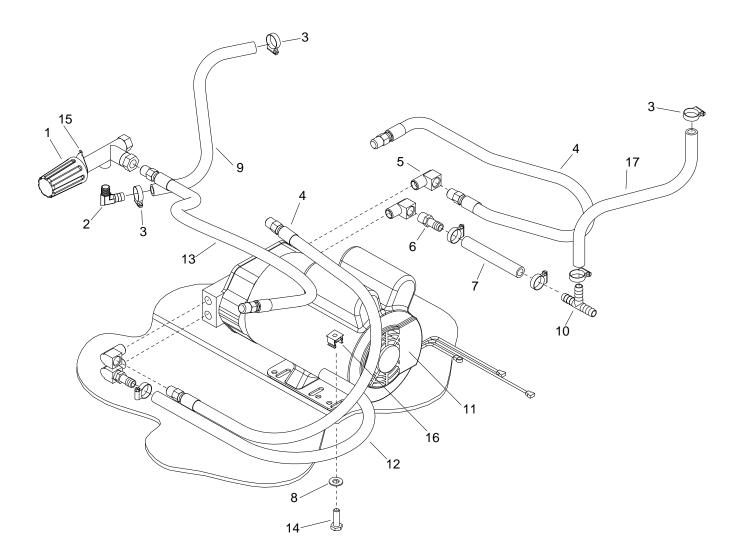
FRAME

REF	PART NO.	PRV NO	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	86005680	57047	1	NUT,1/4-20 HEX NYLOCK		
2	86010630	87013	15	WASHER, 1/4 ID X 5/8 OD SS		
3	86233390	80887	1	CLAMP, 7/8 DIA "P" CUSHIONED		
4	86005640	57030	4	NUT, 10-32 HEX NYLOCK		
5	86279190	87095	10	WASHER, #10 FLAT PLTD		
6	86274040	70076	4	SCR, 10-32 X 1 PFHMS		
7	86200010	140-01	2	HINGE SET CHROME		
8	86001120	730059	2	SPACER, HINGE		
9	86201300	280-03	5	RIVET ALUMINUM 3/16 X 3/4		
10	86198460	20008	2	CLAMP, 5/8 NYLON UL/CSA		
11	86307610	-	1	BASE, NINJA 1200 PSI		
12	86306860	-	1	PLATE, CASTER, WHEEL SUPPORT		
13	86202280	89252	2	WHEEL, 12" CNTRD HUB		
14	86271380	57196	2	NUT, 1/2 PUSH-ON DOME CAP		
15	86273810	70018	10	SCR, 1/4-20 X 1 HHCS SS		
16	86232600	18036	2	CASTER, 5" DIA SWIVEL		
17	86201290	280-02	4	RIVET AL. 3/16 X 1/2 CLOSED		
18	86199600	140-05	2	DRAW PULL LATCH STD.		
19	86002450	22015	1	COUPLER, 1/4 QD		
20	86006450	67420	1	RING, GROUND		
21	86202230	390-09A	2	WASHER, 9/16 S/S USS-THICK		
22	86005710	57105	2	NUT, 1/4-20 HEX W/STAR WASHER		
23	86268270	88226	1	WIRE, 8" GRN/14 76001 X 76001		
24	86308990	-	3	CLAMP, 1" NYLON		
25	86273780	70015	4	SCR, 1/4-20 X 3/4 HHCS SS NP		
26	86201300	280-03	2	RIVET ALUMINUM 3/16 X 3/4		
27	86005670	57040	2	NUT, 1/2 NPT CONDUIT		
28	86256200	73200	2	STRAIN RELIEF, 1/2 NPT FLEX		
29	86199540	060-04A	1	CORD ASM, 14/3 SJT X 25' BLK		
30	86202160	320-05	2	VELCRO STRAPS		
31	86199530	060-04	1	CORD ASM, 12/3 SJT X 25' BLK		



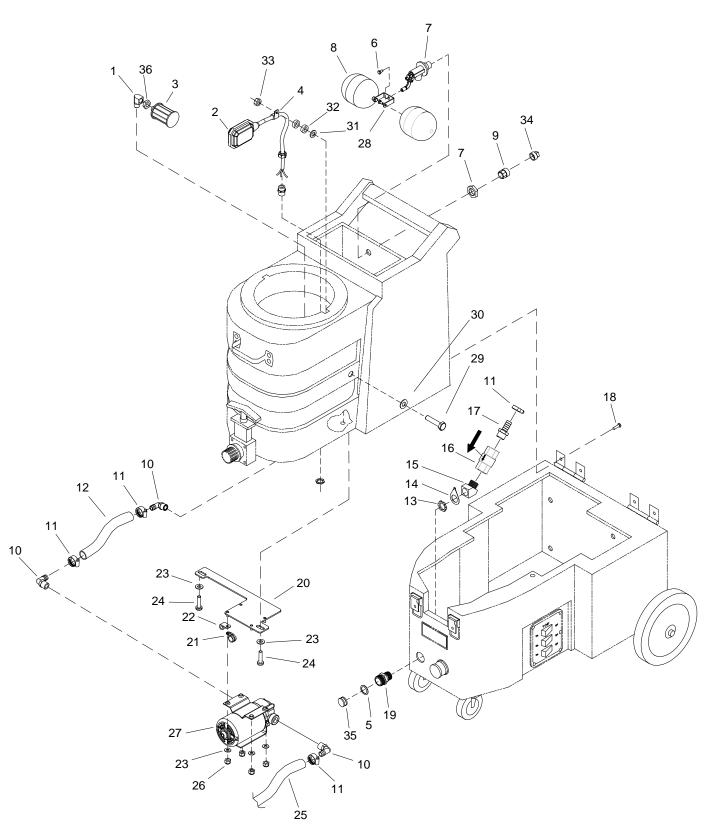
CONTROLS

REF	PART NO.	PRV NO	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	86270920	57049	4	NUT, 6-32 HEX NYLOCK SS		
2	86298680	-	1	TRANSFORMER, 115/230V/24V		
3	86006620	70127	2	SCR, 6-32 X 1/4 PPHMS SS		
4	86308160	-	1	PLATE, RELAY AND TRANSFORMER		
5	86298690	-	1	RELAY, 24VAC		
6	86005720	57106	4	NUT, 8-32 W/STAR WASHER PLTD		
7	86257400	14462	1	TERM BLOCK, 25A 250V 1-1/2		
8	86276290	70626	4	SCR, #10 X 3/4 PPHST HI-LO BLK		
9	86199660	070-08A	1	FAN FINGER GUARD		
10	86199650	070-08	1	FAN 105 CFM AXIAL		
11	86270990	57090	4	NUT, 10-32 HEX NYLOCK SS		
12	86273980	70066	4	SCR, 10-32 X 3/4 PPHMS SS		
13	86201640	330-13	3	SWITCH, DPST ROCKER 20A		
14	86091030	62900	1	PLATE, 3 SWITCH NO HEAT		
15	86307620	-	1	LABEL, PANEL, NINJA 1200 PSI		
16	86309080	-	1	COUPLER, 3/8 FPT, 1/4 FPT		
17	86010650	87018	2	WASHER #10 X 9/16 OD		
18	86308170	-	1	GAUGE, 2000 PSI		
19	86267650	880313	2	WIRE, 8.5" GRN/14 76001 X 76001		
20	86308490	-	1	WIRE, 40" GRN/14 76010 X 76001		
21	86267510	880295	1	WIRE, 25" GRN/14 76010 X 76010		
22	86288500	57062	1	NUT, M4 HEX		



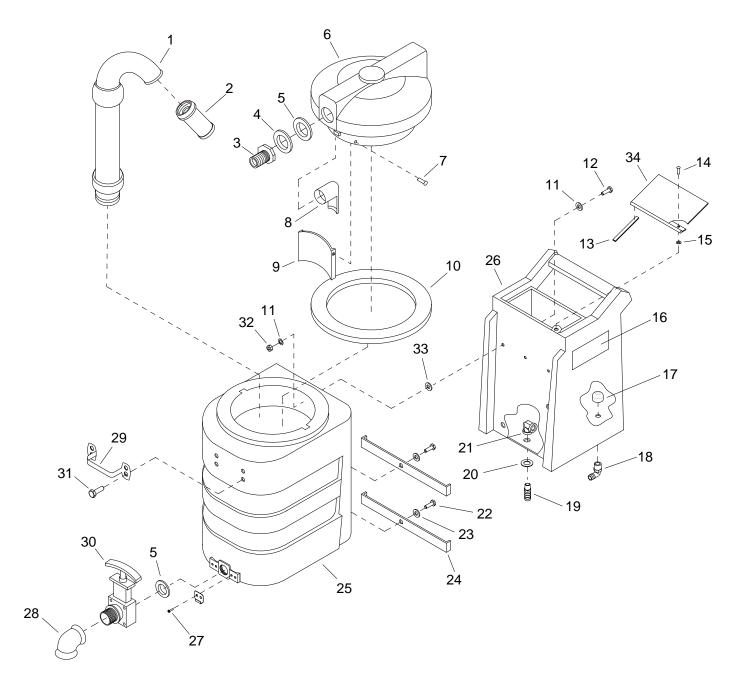
PUMP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86308190	-	1	UNLOADER, 1200PSI, W/KNOB		
2	86180040	790722	1	ELBOW, 1/4 MP X 1/2H 90DEG		
3	86233150	20042	7	CLAMP, 3/8 HOSE (D-SLOT)		
4	86308200	-	1	HOSE, PULSE, 32 3/8MPT X 3/8 X MPTS		
5	86197420	31026	4	ELBOW, 3/8NPT STREET		
6	86197540	40013	2	HOSEBARB, 3/8MPT X 1/2 DL		
7	86281980	39549	1	HOSE, 1/2ID WIRE BOUND X 5"		
8	86010630	87013	4	WASHER, 1/4 ID X 5/8 OD SS		
9	86308340	-	1	HOSE, 1/2 ID WIRE BOUND X 19"		
10	86240410	40078	1	HOSEBARB, 1/2 TEE		
11	86308180	-	1	PUMP/MOTOR, 1200 PSI, 115V		
12	86282270	39631	-	HOSE, 1/2ID WIRE BOUND X 25"		
13	86308220	-	-	HOSE, PULSE 27 3/8 MPT X 1/4 MPTS		
14	86273810	70018	4	SCR, 1/4-20 X 1 HHCS SS		
15	86006450	67420	1	RING, GROUND		
16	86271110	57123	4	NUT, 1/4-20 CAPTIVE		
17	86282360	39734	1	HOSE, 1/2 WIRE BOUND X 28"		



PUMPOUT

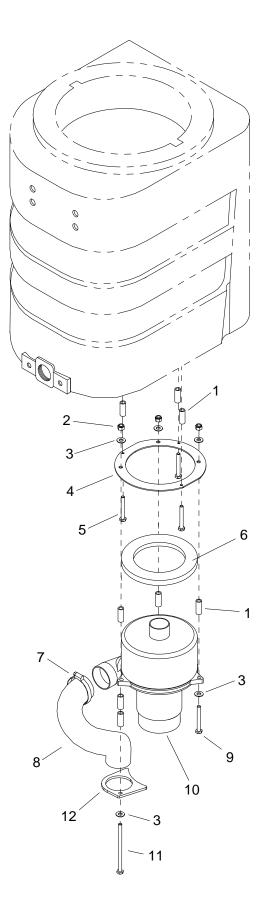
REF	PART NO.	PRV NO	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	86197420	31026	1	ELBOW, 3/8 NPT STREET		
2	86308150	-	1	SWITCH, TILT FLOAT		
3	86308470	-	1	STRAINER, 30 MESH, 3/8 NPT		
4	86075210	20062	1	CLAMP, 3/8 NYLON MCHD		
5	86202210	030-76A	1	WASHER, GARDEN HOSE		
6	86273830	70020	3	SCR, 1/4-20 X 1/2 HHCS SS NP		
7	86195060	15-808110	1	VALVE, FLOAT, TM		
8	86174540	19-807014	2	BALL, FLOAT		
9	86197490	34420	1	FITTING, GARDEN HOSE FX1/2FPT		
10	86197940	40027	3	HOSEBARB, 3/8MPT X 1/2 90D DL		
11	86233150	20042	4	CLAMP, 3/8 HOSE (D-SLOT)		
12	86309360	-	1	HOSE, 1/2ID WIRE BOUND X 4"		
13	86005670	57040	1	NUT, 1/2 NPT CONDUIT		
14	86006450	67420	1	RING, GROUND		
15	86180230	11-800299	1	ELL, STREET 1/2 45 DEG.		
16	86307950	-	1	VALVE, CHECK 1/2 NPT		
17	86197910	40022	1	HOSEBARB, 1/2MPT X 1/2 POLY DL		
18	86006700	70232	4	SCR, 10-32 X 3/8 FHMS SS		
19	86173530	790506	1	ADAPTER, HOSE 1/2M X 3/4 MFT		
20	86308120	-		PLATE, PUMP MOUNT		
21	86233390	80887	1	CLAMP, 7/8 DIA "P" CUSHIONED		
22	86308990	-	1	CLAMP, 1" NYLON		
23	86010650	87018	6	WASHER, #10 X 9/16 OD		
24	86006590	70088	2	SCR, 10-32 X 1/2 PPHMS SS NP		
25	86281950	39541	1	HOSE, 1/2ID WIRE BOUND X 32"		
26	86270990	57090	4	NUT, 10-32 HEX NYLOCK SS		
27	86308230	-	1	PUMP, UTILITY, 115V		
-	86309380	-	-	KIT, PUMP MOTOR BRUSH		
28	86306880	-	1	BRKT, FLOAT MOUNT		
29	86276680	70714	1	SCR, 1/4-20 X 1.5 HHMS SS		
30	86010630	87013	1	WASHER, 1/4 ID X 5/8 OD SS		
31	86279610	87190	1	WASHER, SEAL 1/4 X 5/8OD SS		
32	86201510	390-26	2	SPACER NYLON 1/4ID X 1/2 OD		
33	86005810	57245	1	NUT, 1/4-20 HEX NYLOCK SS		
34	86197480	34419	1	PLUG, GARDEN HOSE		
35	86176420	12-800052	1	CAP, HOSE 3/4 BR		
36	86247960	57176	1	NUT, NYLON 3/8-18 NPT		



RECOVERY & SOLUTION TANK GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86033240	090-17	1	STAND PIPE ASSY		
2	86199840	090-2A	1	FLOAT SCREEN CAGE ASSY (SLIP)		
3	86200290	260-33	1	HOSE BARB, 1.5 MPT X 1.5		
4	86090320	87257	1	WASHER, HOSEBARB		
5	86237770	35256	2	GASKET, DUMP VALVE		
6	86033370	51355	1	LID, NJA DLX LT GRY ALL		
7	86201290	280-02	2	RIVET L. 3/16 X 1/2 CLOSED		
8	86064760	31082	1	ELBOW, 1.5FSX1.5FPT PVC MCHD		
9	86090850	065-42	1	FLOOD MACHINE BAFFLES		
10	86199900	110-26A	1	GASKET, LID		
11	86279610	87190	6	WASHER, SEAL 1/4X5/8OD SS		
12	86273820	70019	6	SCR, 1/4-20 X 1.25 HHCS SS		
13	86198530	99809	5"	FOAM TAPE, 1/8T X 3/4 1SDA		
14	86201280	280-01	2	RIVET AL. 1/8 X 1/2		
15	86010690	87068	2	WASHER, 1/8 RIVET BACKUP		
16	86307620	-	2	LABEL, PANEL, NINJA 1200 PSI		
17	86007970	73864	1	STAINER, 3/8 IN. NPT 60 MESH		
18	86197940	40027	1	HOSEBARB, 3/8 MPT X 1/2 OD DL		
19	86197570	40028	1	HOSEBARB, 1/4 MPT X 1/2 DL		
20	86090230	87015	1	WASHER, 9/16 ID X 1.06 OD SS		
21	86197370	31017	1	ELBOW, 1/4 FPT X 1/4 FPT		
22	86273830	70020	2	SCR, 1/4-20 X 1/2 HHCS SS NP		
23	86273830	87013	2	SCR, 1/4-20 X 1/2 HHCS SS NP		
24	86090770	065-37	2	BRKT, RECOVERY BUCKET		
25	86307590	-	1	TANK, RECVRY NINJA 1200		
26	86307600	-	1	TANK, SOLV, NINJA 1200		
27	86007050	70683	4	SCR, 10-32 X 3/8 PPHMS SS NP		
28	86161470	11-800444	1	ELBOW 2" 45D PVC SCH40		
29	86199970	120-08	1	HANDLE, MACHINE, BLACK		
30	86191460	15-808123	1	DUMP VALVE, 1 1/2"		
31	86276830	70743	4	SCR, 1/4-20 X 3/4 PFH SS NP		
32	86005810	57245	4	NUT, 1/4-20 HEX NYLOCK SS		
33	86237510	35182	4	GASKET, FRAME		
34	86200730	065-03C	1	LID, SOLUTION TANK		

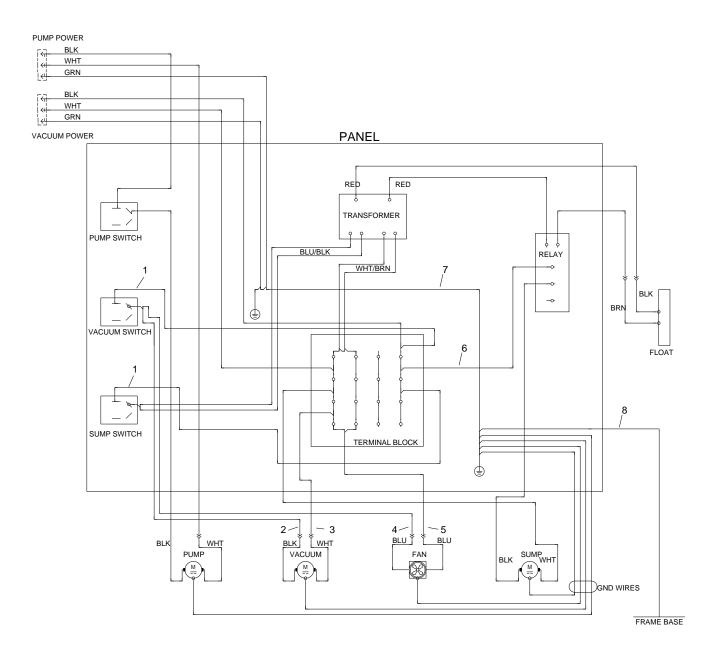
VACUUM MOTOR



VACUUM MOTOR

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86307630	-	8	SPACER, .25 X .50 X 1.31		
2	86005810	57245	3	NUT, 1/4-20 HEX NYLOCK SS		
3	86010630	87013	3	WASHER, 1/4 ID X 5/8 OD SS		
4	86305930	-	1	PLATE, 7.0 VAC MOUNT		
5	86276270	70619	3	SCR, 1/4-20 X 2.0 HHMS SS F/T		
6	86199920	110-28A	1	GASKER, 7.2 LG III STAGE VAC		
7	86002380	20046	1	CLAMP, 2.25" WORM GEAR		
8	86281180	39298	1	HOSE, 2.0 VAC EXHAUST X 17'		
9	86173100	00-000004	2	SCR, CAP 1/4-20 X 2-1/4 HXD		
10	86202050	360-05A	1	VAC, 117507-13 110V 3ST 7.2		
-	86135270	14035	-	BRUSH SET, 7.2 VAC MOTOR		
11	86273770	70014	1	SCR, 1/4-20 X 5 HHCS PLT		
12	86307930	-	1	PLATE, VAC HOSE		

WIRING DIAGRAM



WIRING DIAGRAM

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86268830	88636	2	WIRE, 8" BLK/14 76002 X 76029		
2	86267810	880356	1	WIRE, 42" BLK/14 76029 X 76044		
3	86308820	-	1	WIRE, 42" WHT/14 76044 X 76002		
4	86267970	880419	1	WIRE, BLK/14 76044 X 76050		
5	86267030	880180	1	WIRE, 6" WHT/14 76002 X 76044		
6	86266920	880105	1	WIRE, 6" BLK/18 76028 X 76047		
7	86307990	-	1	WIRE, 10" GRN/14 76010 X 76010		
8	86305570	-	1	WIRE, 10" GRN/14 76001 X 76010		



WINDSOR INDUSTRIES North American New Machine Warranty Effective on all products shipped AFTER July 31, 2007

Limited Warranty

Windsor Industries 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.

10 / 3 Warranty: 10 Years Polyethylene (PE) Housings, 3 Years Parts, and 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 ten (10) years to the original owner.

Under this warranty we guarantee the performance of non-polyethylene parts and components to be free from defects for up to three (3) years or up to 2,500 hours of operation, whichever comes first, 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 three (3) years or up to 2,500 hours of operation, whichever comes first, 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 / Stand up Scrubbers	10 years	3 years or 2000 hours	3 years or 2000 hours	6 Months
Rider Sweepers	10 years	3 years	3 years	6 Months
Walk Behind Scrubbers	10 years	3 years or 2500 hours		6 Months
Walk Behind Sweepers	10 years	3 years	3 years	6 Months
Battery Burnishers	10 years	3 years	3 years	6 Months
Extractors / Compass	10 years	3 years	3 years	
Polishers / Elec. Burnishers / GH/iCapsol Mini	10 years	3 years	3 years	_
Wide Areas Vacuums	10 years	3 years	3 years	-
VacPak Vacuums	10 years	1 year	1 year	-
Tracer/Flex Sweepers/Scrubbers	10 years	3 year	3 months	90 days
Air Movers / Dri-matic / TITAN™ /Rombus/Priza	1 year	1 year	1 year	-
Canister Vacuum	1 year	1 year	1 year	_
Wet/Dry Vacuum	1 year	1 year	1 year	_
Broom	1 year	1 year	1 year	-
Steamer	1 year	1 year	1 year	-
Propane Burnishers / Strippers	-	2 year	1 year	-

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

Product exceptions and Exclusions:

- Extractor brush motors, ALL pump motors, ALL PC boards and electronics, ALL Vacuum motors (other than VERSAMATIC®, SENSOR® and FLEXAMATIC®), ALL pumps, and diaphragms/Tank bags carry a one (1) year parts and service labor warranty.
- The Eagle-Robin® 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.

Windsor Industries reserves the right to change its warranty policy without notice

1

Windsor Industries • A member of KARCHER • 1351 W. Stanford Ave. • (303) 762-1800 • 800-444-7654 • FAX (303) 865-2794 Floor Care • 1351 W. Stanford Ave. • (303) 762-1800 • 800-444-7654 • FAX (303) 865-2794



WINDSOR INDUSTRIES North American New Machine Warranty Effective on all products shipped AFTER July 31, 2007

Normal wear items and accessories including, but not limited to, belts, brushes, FLEXAMATIC® foot pedal, capacitors, carbon brushes, casters, clutches, cords, filters, finishes, gaskets, hoses, light bulbs, rectifiers, switches, squeegees, bearings, pulleys, relays, actuating cables, wheels, tires, and propane tanks 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.

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 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 Will Void All Warranties

This warranty is valid only for all products Shipped/Sold *AFTER* July 31, 2007. A product sold before that date shall be covered by the limited warranty in effect at the date of sale to the original purchaser.

Windsor Industries reserves the right to change its warranty policy without notice

2