



## PORTABLE EXTRACTOR-240V



<u>621-225MO</u> 10070470 **Operating Instructions** 

Read these instructions before using the machine



### MACHINE DATA LOG/OVERVIEW

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

	YOUR DEALER
Name:	
Address:	
Phone Number:	

### **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 Manual1-1	1
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### 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
Priming the Pump	3-3
Emptying & Cleaning Tanks	

### MAINTENANCE

Daily Maintenance	4-1
Periodic Maintenance	4-1
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
Pressure Regulator	4-4
Machine Troubleshooting	4-5

### **GROUP PARTS LIST**

Frame Group (200 psi)	5-1
Frame Group (500 psi)	
Pump Group (200 psi)	
Pump Group (500 psi)	
Recovery and Solution Tank Group	
Vacuum Motor Group	5-11
Wiring Group (200 psi)	5-13
Wiring Group (500 psi)	5-14
EC Declaration	5-15

## 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	L
SERIAL NUMBER	L
SALES REPRESENTATIVE #	L
DEALER NAME	L
OPERATIONS GUIDE NUMBER	L
PUBLISHED	l

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.

NOTE: The number on the lower left corner of the front cover is the part number for this manual.

## 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:

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.

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. THIS PAGE LEFT BLANK INTENTIONALLY

## **TECHNICAL SPECIFICATIONS**

ITEM	MEASURE	
ELECTRICAL	230 Volt, 50 hz	
Vacuum Motor	Dual 2 stage	
Solution Pump 200 psi		
	500 psi	
Solution Capacity	10 gal (38 L)	
Recovery Capacity	8 gal (240 kg)	
Weight- Empty	110 lbs (240 kg)	
Weight-Full Solution	200 lbs (440 kg)	
Height	36 inches (91.44 cm)	
Length	29 inches (73.66 cm)	
Width	19.5 inches (49.53 cm)	
Power cord	22 feet (6.71 m)	







- **1.** Pump Switch
- 2. Vacuum #1 Switch
- 3. Vacuum #2 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.
- 4. 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.

### PRIMING THE PUMP (SELF PRIMING VALVE) [High Pressure Pump Models ONLY]

Turn pump and both vacuums on.

- 1. Press lever (located above the accessory connection; front of machine) toward machine.
- Do this for 30 seconds or until there is a steady flow of water flowing through the sight tube. (located on right side of recovery tank.)

### **EMPTYING AND CLEANING**

## WARNING:

Always use defoamer if foaming occurs. Foam will

suspend large particles that may damage vacuum(s) as well as allow liquid into the vacuum motor(s) without activating the float shutoff.

- 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.
- 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

### DAILY MAINTENANCE

## A WARNING:

# Unplug power cord(s) 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.
- 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 high-

pressure hoses may result in severe burns and serious injury.

### PERIODIC MAINTENANCE

WARNING:

 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.

- Check hoses for wear, blockages, or damage. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure.
- 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 o-rings. 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.

By using the Self Priming Lever you may help clear out all water lines.

Make sure both recovery and solution tanks are empty. Turn on both vacuum switches and press lever. All water should be removed and sprayed into the recovery tank.

Empty the remaining water and wipe dry.

**HEAT MODELS ONLY:** Be sure to thoroughly drain water out of heater lines prior to storage in colder climates. This heater will freeze and possibly crack voiding your warranty.

## MAINTENANCE



### 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.



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



#### 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





### MAINTENANCE

### PRESSURE REGULATOR

For best results with the pressure regulator, we recommend that you clean and lubricate the piston and u-cup with Superlube lubricant monthly or when pressure drop seems excessive.

- 1. Turn unit off before lubricating.
- 2. Remove cap, spring and spring retainer plate.
- 3. With fingertips remove piston and u-cup.
- 4. Wipe piston and u-cup clean of any film or scale.
- 5. Lubricate the piston and u-cup with Superlube.
- 6. Reassemble regulator.
- 7. With pump ON, re-adjust pressure regulator for normal operation.

### LUBRICATE U-CUP WITH SUPERLUBE MONTHLY.



## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION		
Loss of Power	Dead electrical circuit	Check building circuit breaker or fuse box.		
	Faulty power cord	Replace		
	Equipment not grounding	Follow grounding instructions exactly		
Electrical shock	Receptacle not grounded	Contact an electrician to check building's wiring		
LIECTICALSHOCK	Internal wiring problem	Have a trained service technician check machine's wiring		
Vec motor apod verice	Worn motor brushes	Replace		
Vac motor speed varies or doesn't run	Motor worn out Replace			
or doesn't run	Faulty switch	Replace		
	Loose vacuum dome	Center and seal dome over tank		
	Crack in dome of poor joint	Replace or repair using acrylic plastic cement only		
	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 screens plugged	Clean inlet screens		
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		
	Jet orifice on cleaning wand is to large	Total jet opening for 100 psi should be .06 to .08		
	Internal pump components wearing out	Replace, see pump kit components (pg 4-3)		
Pump runs, loss of pressure	Note: Operation of pump using a wand or hand tool with an orifice of less than .06 will cause pump to cavitate or pulsate and could result in premature wear of pump components.			
	Check valves in pump head for particles or cuts in seals	Take piston from BPR and lubricate with Superlube. If problem still exists change BPR kit		
Pump will not run	Unit not plugged in	Connect unit to 3 prong grounded outlet		
•	Loose wiring	See dealer		
Solution hose fitting hard to connect	Corrosion on fittings.	Clean with steel wool. Soak in acetic acid (white vinegar). Lubricate lightly with silicone base lubricant.		
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		
Carpet browning	Leaving carpet too wet	Check for loss of vac pressure		
	Too much chemical	Check label for correct solution concentration		
Carper browning	Light carpet with no brown prevention	Go over carpet with browning prevent only		
	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 GROUP (200 PSI)

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86274040	70076	4	SCR, 10-32 X 1.0 PFHMS SS		
2	86006700	70232	4	SCR, 10-32 X 3/8 FHMS SS		
3	86200010	140-01	1	HINGE SET CHROME		
4	86279190	87095	10	WASHER, #10 FLAT PLTD		
5	86005640	57030	4	NUT, 10-32 HEX NYLOCK		
6	86201300	280-03	4	RIVET ALUMINUM 3/16 X 3/4		
7	86198460	20008	2	CLAMP, 5/8 NYLON UL/USA		
8	86202230	390-09A	1	WASHER 9/16 S/S USS-THICK		
9	86199590	140-04	2	DRAW PULL LATCH LOCKING		
10	86005810	57245	2	NUT, 1/4-20 HEX NYLOCK SS		
11	86201290	280-02	9	RIVET AL. 3/16 X 1/2 CLOSED		
12	86002450	22015	1	COUPLER, 1/4 QD		
13	86199430	040-03	2	CASTER SWIVEL 4" SWIVEL		
14	86273830	70020	8	SCR, 1/4-20 X 1/2 HHCS SS NP		
15	86200670	500359	1	LABEL, NINJA 3 SWITCH NO HEAT		
16	86091030	62900	1	PLATE, NINJA 3 SWITCH NO HEAT		
17	86201640	330-13	3	ROCKER SWITCH DBL POLE		
18	86271380	57196	2	NUT, 1/2 PUSH-ON DOME CAP		
19	86202250	040-06	2	WHEEL 8" BLK CENTERED HUB		
20	86273810	70018	1	SCR, 1/4-20 X 1 HHCS SS		
21	86199200	010-04B	1	AXLE SINGLE NINJA		
22	86064930	08055	1	BASE, NJA DLX 200 2 ST N/H		
23	86005670	57040	1	NUT, 1/2 NPT CONDUIT		
24	86256200	73200	1	STRAIN RELIEF 1/2 NPT FLEX		
25	86199550	060-04B	1	CORDSET 1.00M3X25 SAA/3, OR-1A		
26	86202160	320-05	1	VELCRO STRAP		
27	86161480	33-901006	1	FILTER, INLINE 16A F55047/1		
28	86136280	57054	1	NUT, M8		

## FRAME GROUP (500 PSI)



## FRAME GROUP (500 PSI)

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86006540	70068	4	SCR, 10-32 X 3/4 PFHMS SS		
2	86006700	70232	4	SCR, 10-32 X 3/8 FHMS SS		
3	86200010	140-01	1	HINGE SET CHROME		
4	86279190	87095	10	WASHER, #10 FLAT PLTD		
5	86005640	57030	4	NUT, 10-32 HEX NYLOCK		
6	86202230	390-09A	1	WASHER 9/16 S/S USS-THICK		
7	86197390	31021	1	ELBOW, 1/4 NPT X 45D STREET		
8	-	OPEN	-	-		
9	86005700	57104	2	NUT, 10-32 W/STAR WASHER PLTD		
10	86199590	140-04	2	DRAW PULL LATCH LOCKING		
11	86005810	57245	2	NUT, 1/4-20 HEX NYLOCK SS		
12A	86201290	280-02	11	RIVET AL. 3/16 X 1/2 CLOSED		
12B	86201300	280-03	4	RIVET ALUMINUM 3/16 X 3/4		
13	86200970	190-07	1	PRESSURE GAUGE 1000 PSI		
14	86002450	22015	1	COUPLER, 1/4 QD		
15	86232600	18036	2	CASTER, 5" DIA SWIVEL		
16	86273830	70020	8	SCR, 1/4-20 X 1/2 HHCS SS NP		
17	86201640	330-13	3	ROCKER SWITCH DBL POLE		
18	86091030	62900	1	PLATE, NINJA 3 SWITCH NO HEAT		
19	86200670	500359	1	LABEL, NINJA 3 SWITCH NO HEAT		
20	86276290	70626	4	SCR, #10 X 3/4 PPHST HI-LO BLK		
21	86199660	070-08A	1	FAN FINGER GUARD		
22	86199670	070-08B	1	FAN 105 CFM AXIAL 220V		
23	86271380	57196	2	NUT, 1/2 PUSH-ON DOME CAP		
24	86202280	89252	2	WHEEL, 12" BLK CNTRD HUB		
25	86090740	010-07	2	AXLE ASM, NJA		
26	86005670	57040	1	NUT, 1/2 NPT CONDUIT		
27	86256200	73200	1	STRAIN RELIEF 1/2 NPT FLEX		
28	86199550	060-04B	1	CORDSET, 1.0MM3X25 SAA/3, OR-1A		
29	86200570	170-41	1	LABEL CIRCUIT INTERUPTER		
30	86310610	-	1	BASE, NINJA 500 240V		
31	86199320	110-14A	1	CAP PLUG 1"		
32	86199460	20008	2	CLAMP, 5/8 NYLON UL/USA		
33	86161480	33-901006	1	FILTER, INLINE 16A F55047/1		
34	86136280	57054	1	NUT, M8		



## PUMP GROUP (200 PSI)

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86233150	20042	5	CLAMP, 3/8 HOSE (D-SLOT)		
2	86280750	151-38A	2	HOSE, 1/2 WIREBOUND X 21"		
3	86068520	40028	2	HOSEBARB, 1/4 MPT X 1/2 DL		
4	86199230	250-33	1	BPR PUMPTEC NINJA 200PSI		
5	86005590	56014	1	NIPPLE, 1/4 CLOSE		
6	86197670	56023	1	NIPPLE, ¼ X 1.5		
7	86272730	66017	1	PLUG, 1/4 BRASS PIPE		
8	86247710	56022	1	NIPPLE, 1/4 X 3		
9	86197370	31017	2	ELBOW, 1/4 FPT X 1/4 FPT		
10	86005810	57245	2	NUT, 1/4-20 HEX NYLOCK SS		
11	86010630	87013	4	WASHER, 1/4 ID X 5/8 OD SS		
12	86020350	70019	2	SCR, 1/4-20 X 1.25 HHCS SS		
13	86200130	151-37C	1	HOSE, PULSE 24.0 1/4 MPT X 1/4 MPT		
14	86200940	65227	1	PUMP/MOTOR, 200PSI 230V AC		
15	86282310	39699	1	HOSE, 3/8 WIREBOUND X 35"		
16	86197550	40014	1	HOSEBARB, 1/4MPT X 3/8 DL		
17	86258970	84193	1	VALVE, KNGSTN 3" LVR 500 PSI		
18	86197670	56023	1	NIPPLE, 1/4 X 1.5		
19	86197760	78308	1	TEE, 1/4 STREET		



## PUMP GROUP (500 PSI)

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86233150	20042	7	CLAMP, 3/8 HOSE (D-SLOT)		
2	86280750	151-38A	1	HOSE, 1/2 WIREBOUND X 21"		
3	86197540	40013	2	HOSEBARB, 3/8 MPT X 1/2 DL		
4	86199270	250-36	1	BPR 500 PSI		
5	86200170	151-42C	1	HOSE, PULSE 15.0 1/4 FBS X 3/8 MPT		
6	86197420	31026	3	ELBOW, 3/8 NPT STREET		
7	86200840	56005	2	NIPPLE, 3/8 X 1.5 BRASS		
8	86197720	66029	3	PLUG, 3/8 MPT		
9	86201780	78029	1	TEE, 3/8		
10A	86201250	65224	1	PT500PSI PUMP/MOTOR ONLY 220V	*	
10B	86288840	65221	REF	REPLACEMENT MOTOR KIT		PRIOR TO SN *
11	86005710	57105	2	NUT, 1/4-20 HEX W/STAR WASHER		
12	86010630	87013	2	WASHER, 1/4 ID X 5/8 OD SS		
13	86273810	70018	2	SCR, 1/4-20 X 1 HHCS SS		
14	86200370	39581	1	HOSE, PULSE 20.0 1/4 MPT X 3/8 MPT		
15	86281980	39549	1	HOSE, 1/2" X 5"		
16	86008220	73999	1	SCREEN ASM		
17	86007250	730000	REF	REPLACEMENT SCREEN FOR 73999		NOT SHOWN
18	86201230	65222	REF	PT500PSI COMPLETE ASM, 220V		WITH BRASS & HOSES
19	86201240	65223	REF	PT MOTOR W/ CAM 220V		NOT SHOWN
20	86201260	65225	REF	PT500PSI PUMP HEAD ONLY		NOT SHOWN
22	86282310	39699	1	HOSE, 3/8 WIREBOUND X 35"		
23	86197550	40014	1	HOSEBARB, 1/4MPT X 3/8 DL		
24	86258970	84193	1	VALVE, KNGSTN 3" LVR 500 PSI		
25	86197670	56023	1	NIPPLE, 1/4 X 1.5		
26	86197760	78308	1	TEE, 1/4 STREET		
27	86271370	57189	2	NUT, 1/4-20 FLANGE LOCK		



## **RECOVERY & SOLUTION TANK GROUP**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86033370	51355	1	LID, NJA DLX LT GRY ALL		
2	86200290	260-33	1	HOSEBARB, 1.5MPT X 1.5		
3	86199840	090-12A	1	FLOAT CAGE ASSY COMPLETE SLIP		
4	86033240	090-17	1	NINJA STAND PIPE ASSY		
5	86273820	70019	6	SCR, 1/4-20 X 1.25 HHCS SS		
6	86199900	110-26A	1	GASKET NINJA LID		
7	86201290	280-02	2	RIVIT AL. 3/16 X 1/2 CLOSED		
8	86064760	31082	1	ELBOW, 1.5FS X 1.5FPT PVC MCHD		
9	86090850	065-42	1	FLOOD MACHINE BAFFLE		
10	86279610	87190	12	WASHER, SEAL 5/8 OD NEOPRENE		
11	86005810	57245	6	NUT, 1/4-20 HEX NYLOCK SS		
12	86199970	120-08	1	MACHINE HANDLE BRASS/CHROME		
13	86006670	70201	4	SCR, 1/4-20 X 3/4 FHCS DL		
14	86161460	15-808123	1	DUMP VALVE, 2"		
15	86161470	11-800444	1	ELBOW, 2" 45D PVC SCH40		
16	86007050	70683	5	SCR, 10-32 X 3/8 PPHMS SS NP		
17	86198460	20008	1	CLAMP, 5/8 NYLON UL/USA		
18	86033410	75330	1	TANK, RECVRY NJA ALL		
19	86237510	35182	6	GASKET, FRAME		
20	86197370	31017	1	ELBOW, 1/4 FPT X 1/4 FPT		
21	86010630	87013	2	WASHER, 1/4 ID X 5/8 OD SS		
22	86090230	87015	2	WASHER, 9/16 ID X 1.06 OD SS		
23	86197570	40028	2	HOSEBARB, 1/4 MPT X 1/2 DL		
24	86273830	70020	2	SCR, 1/4-20 X 1/2 HHCS SS NP		
25	86090770	065-37	2	BRKT, RECOVERY BUCKET NINJA		
26	86199630	030-13	1	ELBOW, 45 DEGREE 1/4 FPT		
27	86247980	56015	1	NIPPLE, 1/4 HEX		
28	86192840	290-08	1	SOL SCREEN (ACORN) W/RUB BASE		
29	86033500	75346	1	TANK, SLTN NJA 200/500 PSI		
30	86200580	500341	2	LABEL, NINJA MAIN		
31	86010690	87068	3	WASHER, 1/8 RIVET BACKUP		
32	86201280	280-01	3	RIVIT AL. 1/8 X 1/2		
33	86200730	065-03C	1	SOLUTION COVER NINJA DELUXE		
34	86198530	99809	5"	FOAM TAPE, 1/8T X 3/4 1SDA		
35	86090320	87257	1	WASHER, HOSEBARB		
36	86237770	35256	2	GASKET, DUMP VALVE		

## VACUUM MOTOR GROUP



## VACUUM MOTOR GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86201510	390-26	3	SPACER NYLON 1/4ID X 1/2OD		
2	86199910	110-26B	1	GASKET, VAC BRACKET		WAS 35168
3	86090960	360-23A	1	PLATE, VAC		
4	86003760	35166	2	GASKET, VAC MTR		
5	86201970	065-92	6	VAC SPACER 2 1/4 II STAGE		
6	86010630	87013	6	WASHER, 1/4ID X 5/8OD SS		
7	86004020	360-06	2	VAC MOTOR, 230V 5.7 2ST TD		
8	86256490	70814	3	STUD, 1/4-20 X 4.5 SS		
9	86134400	99656	1	DUCT, 5/8 ID SPLIT FLEX		
-	86230760	140216	-	BRUSH SET, 230V VAC AMETEK		SERVICE ONLY
-	86135330	140688	-	BRUSH SET, 230V VAC WINDSOR	*	SERVICE ONLY
10	86274460	70205	1	SCR, ¼-20 X 3/8 HHCS PLT DL		
11	86090950	360-23	1	PLATE ASM, REAR VAC		
12	86091230	78463	1	TUBE, VAC EXHAUST 2.5" LONG		
13	86201280	280-01	2	RIVIT AL. 1/8 X 1/2		
14	86007010	70663	3	SCR, 1/4-20 X 3-1/4 HHCS PLT		
15	86005810	57245	3	NUT, 1/4-20 HEX NYLOCK SS		
16	86063170	39566	1	HOSE, VAC EXHAUST 2"ID X 2" LONG		
17	86002380	20046	2	CLAMP, 2.25" WORM GEAR		
18	86005710	57105	3	NUT, 1/4-20 HEX W/ STAR WASHER		
19	86075210	20062	1	CLAMP, 3/8 NYLON MCHND		
20	86282300	39698	1	HOSE, 3/8 CLR PLYURTHN X 24"		
21	86003500	31076	1	ELBOW, 1/4MPT X 3/8 TUBE, QC		
22	86197370	31017	1	ELBOW, ¼ FPT X ¼ FPT		

## WIRING GROUP (200 PSI)



