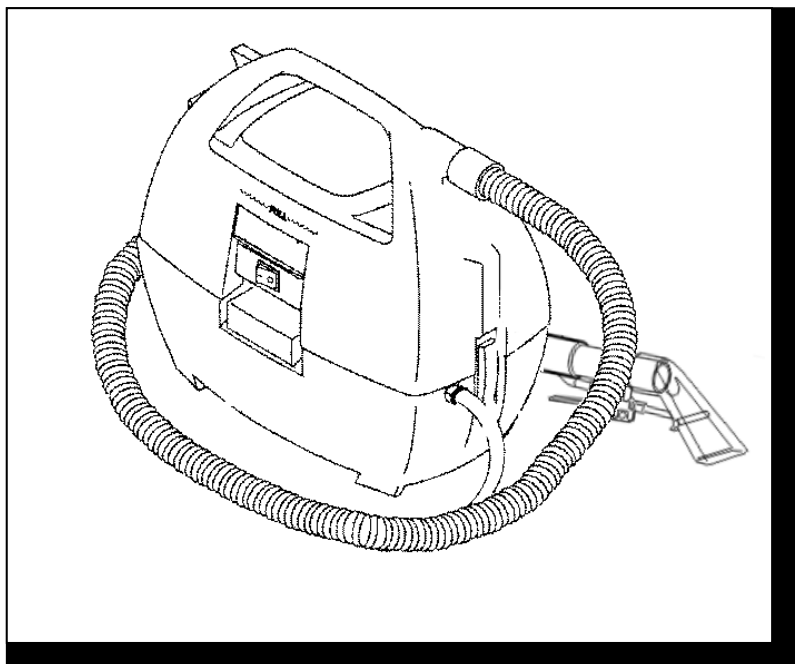


# MINI-EXTRACTOR

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Operating Instructions



120V MODELS ONLY

# MACHINE DATA LOG/OVERVIEW

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

<b>YOUR DEALER</b>	
Name:	_____
Address:	_____
Phone Number:	_____

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# HOW TO USE THIS MANUAL

This manual contains the following sections:

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

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

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

The model and serial number of your machine is on the back underside of machine.

The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards is identified that could result in product or personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition.

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

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

*NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.*

*NOTE: The 98# on the lower left corner of the front cover is the part number for this manual.*

# IMPORTANT SAFETY INSTRUCTIONS

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

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.



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

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

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

If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

**Do not** operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

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

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

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

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

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

**When leaving unattended**, secure against unintentional movement.

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

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

**Do not** handle the plug or machine with wet hands.

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

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

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

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

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

## SAVE THESE INSTRUCTIONS

## **HAZARD INTENSITY LEVEL**

The following symbols are used throughout this guide as indicated in their descriptions:

### **HAZARD INTENSITY LEVEL**

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

#### **! WARNING**

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

#### **! CAUTION**

**CAUTION** - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

#### ***FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.***

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

#### ***FOR SAFETY:***

**DO NOT OPERATE MACHINE:**

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects.

#### ***WHEN SERVICING MACHINE:***

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

## GROUNDING INSTRUCTIONS

**THIS PRODUCT IS FOR COMMERCIAL USE ONLY.**

### ELECTRICAL:

In the USA this machine operates on a standard 15 amp 115V, 60 hz, A.C. power circuit . The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

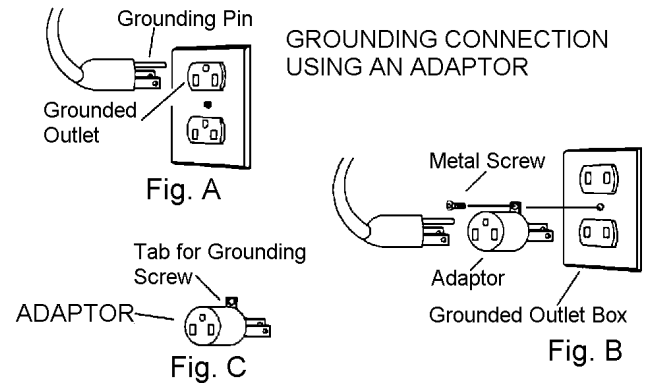
### EXTENSION CORDS:

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

### GROUNDING INSTRUCTIONS:

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

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig . C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like 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.

### **⚠ WARNING**

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

# MACHINE OPERATIONS

## SET UP AND OPERATION

1. Upon removing your new mini-extractor from the box, loosen the latch at back end of the machine that secures the recovery tank to the solution tank. Remove the recovery tank from the solution tank.
2. Pour clean, hot water to the indicated fill line of the solution tank. **To avoid possible tank distortion, water temperature must not exceed 140 F (60C).**
3. Add a non-foaming cleaning solution concentrate, for use in hot water extractors at the proportions noted on the container (See list below), into solution tank.
4. Place the recovery tank back onto the solution tank and refasten the latch.
5. Plug the power cord into grounded outlet (See GROUNDING INSTRUCTIONS).
6. Connect the vacuum and cleaning tool hoses to the extractor. This unit is equipped with an 1/8" male quick connect for solution hose attachment and a 1" ID vacuum hose hookup. Insure that the female solution hose coupler is securely locked onto the male coupler on the extractor.
7. Turn switch ON. This switch operates both the vacuum motor and the water pump. **NOTE: The pump is an oscillating pump and should not be run dry for extended periods of time. This may cause damage to your pump, therefore voiding your warranty.**
8. Squeeze the solution lever on the cleaning tool to spray cleaning solution and place the vacuum head on the surface to be cleaned. Normally, chemical is applied on the **push** stroke while vacuuming is done on the **pull** stroke. For heavily soiled carpets the hand tool may be used in the scrubbing manner, applying chemical in both the push and pull stroke.  
**ALWAYS FINISH UP AN AREA WITH A VACUUM PULL STROKE.**
9. When cleaning, be sure to monitor the level of recovered solution in the recovery tank. When the solution reaches the FULL mark, shut off the extractor, loosen the latches and empty the recovery tank.  
**NOTE: Dispose of waste in a proper manner which would not violate any Local, State or Federal law.**

### CAUTION

Operating vacuum with solution above the FULL mark could draw water directly into the vac motor. This will cause damage to the motor, therefore voiding your warranty.

### CAUTION

**ALWAYS TEST UPHOLSTERY/CARPET FOR COLOR FASTNESS IN AN INCONSPICUOUS PLACE.** Also, to avoid

prolonged drying times, do not spray too much solution in any one area.

### WARNING

**Always use defoamer if foaming occurs. Foam will suspend large particles which may damage vacuum as well as allow liquid into the vacuum motor without activating the float shutoff.**

### WARNING

*To prevent possible disease hazard, before attempting to clean bodily fluids spills, you must kill any viruses, germs or bacteria present in the bodily fluid.*

SUITABLE CHEMICALS	INCOMPATIBLE CHEMICALS
Alkalis	Aldehydes
Clorox II Bleach*	Aromatic Hydrocarbons
Defoaming Agents	Butyls
Detergents	Carbon Tetrachloride
Hydroxides	Clorox*
Oxygen Bleaches	Chlorinated Bleaches
Soaps	Chlorinated Hydrocarbons
Sta-Puf Fabric Softener*	D-Limonene
Vinegar	Lysol*
	Methyls (MEK)
	Perchloroethylene perc)
	Phenols
	Trichloroethylene

\*Registered Trademark

### WARNING

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

## SHUT DOWN AND STORAGE

1. Turn Switch OFF. Empty recovery tank completely and rinse several times to remove any dirt or debris that may be left behind.
2. Tip the solution tank over a sink to drain any unused cleaning solution and rinse with clean water to remove any suds left behind by the cleaning chemicals. **NOTE: Dispose of waste in a proper manner which would not violate any Local, State or Federal law**
3. Run a small amount of clean water through pump if chemicals were used. This will help insure the life of your pump.
4. Check the spray jet on the cleaning tool for full spray pattern and inspect vac head for any obstructions. Also make sure to clean the filter cap attached to portal cover of any debris that may have been trapped during cleaning.
5. Remove as much moisture from system before storing in cold climates. Excess water may freeze during storage and crack internal components, causing damage to the unit.



## DAILY MAINTENANCE:

Follow same procedure for Shut Down and Storage.

## PERIODIC MAINTENANCE:

1. Twice a month, flush a white vinegar solution (one quart vinegar to two gallons water) or anti-browning solution (mixed as directed) through the extractor. This will prevent build-up of alkaline residue in the system.
2. If spray jet becomes clogged, remove the spray tip, wash it thoroughly, and blow dry. **NOTE: DO NOT USE PINS, WIRE, ETC. TO CLEAN NOZZLE AS THIS COULD DESTROY THE SPRAY PATTERN.**
3. Apply silicone lubricant to solution nipple.
4. Periodically inspect all hoses, electrical cable and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss. If the cable insulation on the power cord is broken or frayed, repair or replace immediately. Don't take chances with electrical fire or shock.

## WARNING:

Only qualified maintenance personnel are to perform the following repairs.

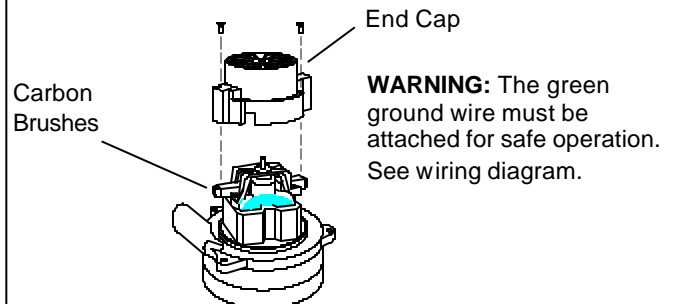
## SOLUTION PUMP REPLACEMENT:

1. Turn off all switches and unplug the machine.
2. Unlatch and remove recovery tank.
3. Unfasten screws holding vacuum motor housing to solution tank.
4. Unfasten screws holding pump plate to bottom of solution tank.
5. Remove solution hoses from fittings on pump.
6. Remove pump from brackets and remove fittings and grounding wire.
7. Reverse process to install new replacement pump.

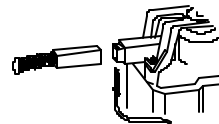
## VACUUM MOTOR REPLACEMENT:

1. Turn off all switches and unplug machine.
2. Unlatch and remove recovery tank.
3. Unfasten screws holding vacuum motor retainer to vacuum motor housing
4. Lift vacuum motor from vacuum motor housing. Locate the vacuum motor wires and disconnect at the connector.
5. Remove vacuum motor.
6. Reverse process to install vacuum motor replacement.

### Vacuum Motor Carbon Brushes Replacement

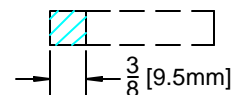


If armature commutator is grooved, extremely pitted or not concentric, the motor will need to be replaced or sent to a qualified service center.



### **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.

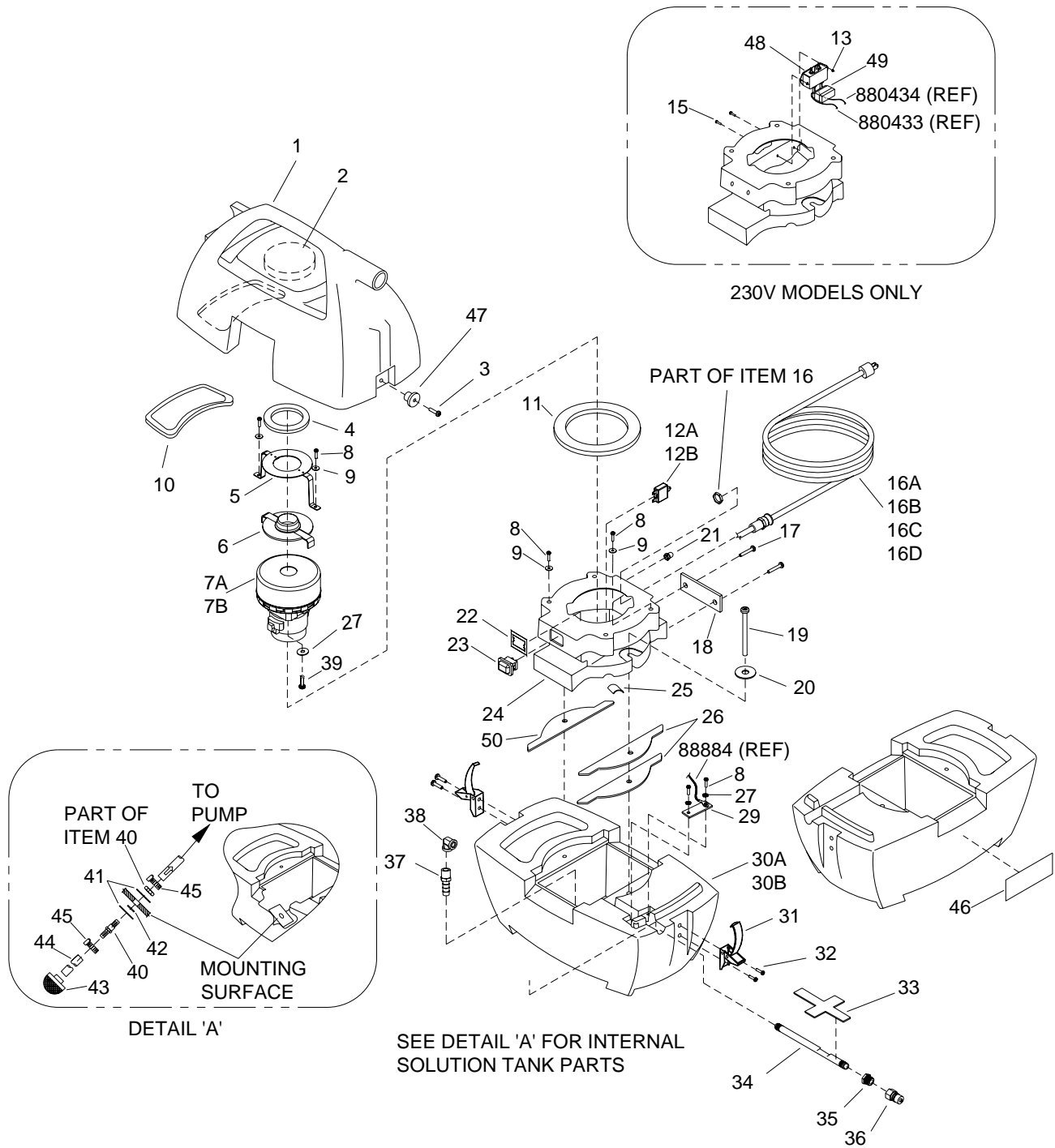
# **TROUBLESHOOTING**

## **TROUBLESHOOTING**

PROBLEM.	CAUSE	SOLUTION
Little or no solution flow	Clogged spray jet on cleaning tool	Remove and clean jets
	Faulty pump	Check and replace pump.
	Incorrectly attached solution hose	Ensure solution hose coupler is securely attached to the coupler on the solution tank.
Loss of vacuum/ Solution recovery	Incorrectly attached vac hose	Ensure vac hose is pushed completely onto the recovery tank inlet.
	Obstruction in cleaning tool	Inspect for and remove any debris.
	Recovery tank is not securely mounted on the solution tank.	Tighten latch on either end of the machine.



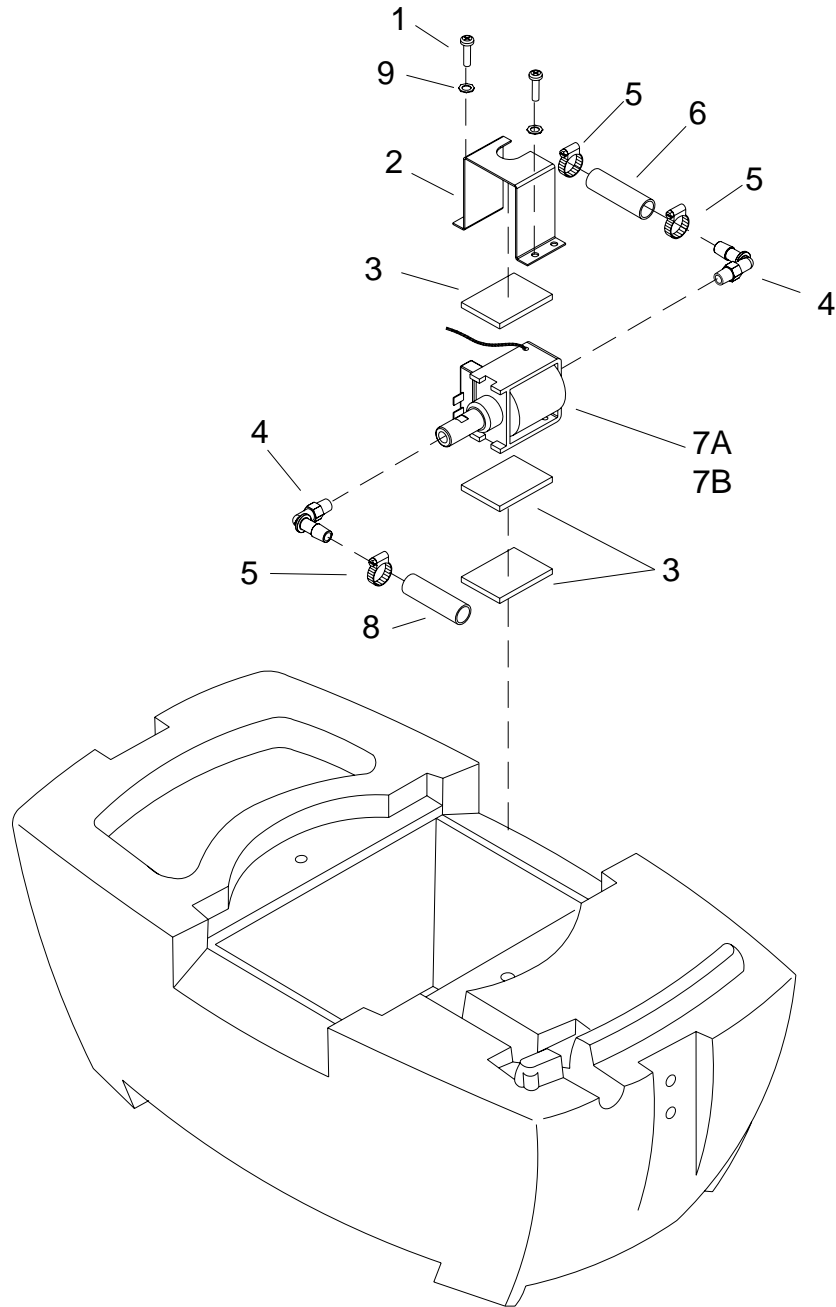
# EXTRACTOR GROUP



## EXTRACTOR GROUP

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	75211	1	TANK, RECOVERY		
2	34293	1	FOAM, 4.00 OD X 1.0 THICK		
3	70859	2	SCREW, 8-32 X 1/2 FHMS BLK PLTD		
4	35168	1	GASKET, 4.06 X 2.50 X .38		
5	67511	1	RETAINER, VAC MOTOR		
6	270102	1	COVER, VAC MOTOR		
7A	53137	1	VAC MOTOR, 120V 2ST LNP		
7B	53813	1	VAC MOTOR, 230V 2ST LNP		230V MACHINES ONLY
8	70162	6	SCR, 10-32 X 3/8 PPHMS SS		
9	87493	4	WASHER, M6 X 12.5 FLAT SS		
10	35160	1	GASKET, SPOTTER RECOVERY		
11	35161	1	GASKET, 4.0 X 5.5" X .25 PORON		
12A	140839	1	BREAKER, 8A VDE CIRCUIT		
12B	140815	1	BREAKER, 4A VDE CIRCUIT		230V MACHINES ONLY
13	OPEN				
14	OPEN				
15	67481	3	RIVET, M4 X 14 MM		
16A	23722	1	CORD ASM, 14 X 3 25' YLW SPOTTER		U.S. MACHINE
16B	23720	1	CORD ASM, UK SPOTTER		UK MACHINE
16C	23723	1	CORD ASM, EURO SPOTTER		EUROPE MACHINE
16D	23724	1	CORD ASM, AUST SPOTTER		AUSTRILIA MACHINE
17	OPEN				
18	62129	1	PLATE, DATA LABEL		
19	70556	2	SCREW, 1/4-20 X 1.5 PHMS PLTD		
20	87493	2	WASHER, M8 X 22 FLAT PLTD		
21	14942	1	BOOT, 3/8 CIRCUIT BREAKER		
22	27376	1	CLIP, SWITCH RETAINING		
23	72194	1	SWITCH, DPST 250V 16(4) SPLASH		
24	41278	1	HOUSING, VAC		
25	35173	1	GASKET, NIPPLE SEAL		
26	35172	2	GASKET, VAC HOUSING 3/16"		
27	87016	3	WASHER, #10 EXT. TOOTH LOCK		
28	OPEN				
29	140037	1	BRACKET, NIPPLE		
30A	75210	1	TANK, SOLUTION		
30B	75459	1	TANK, SOLUTION SPOTTER GRAY		
31	51320	2	LATCH, PRESTO TANK		
32	70052	4	SCREW, 8-32 X 3/8 PPHMS SS		
33	35368	1	GASKET, GROUND WIRE		
34	56049	1	NIPPLE, 1/4 X 6.0 BRASS		
35	04066	1	ADPTR, 1/8 MPT X 1/4 FPT BRASS		
36	270-11A	1	NIPPLE, 1/8 FPT QD MALE BRASS		
37	40029	1	HOSEBARB, 1/4 MPT X 3/8		
38	31017	1	FITTING, ELBOW, 1/4 FPT X 1/4 FPT		
39	70689	1	SCR, M4.8 X 10 HHTF TYPE B		
40	140070	1	BULKHEAD, UNION		
41	87136	2	WASHER, .52 ID X .875 OD		
42	59034	1	O-RING, 0.36" X 0.56"		
43	73250	1	STRAINER, 80 MESH X 3/8 FPT		
44	39708	1	HOSE, 3/8 ID SGLBRD RBR X 4.5"		
45	20042	2	CLAMP, HOSE		
46	500895	1	LABEL, WARNING		
47	48074	2	KEEPER, PRESTO LATCH		
48	34290	1	FILTER, EMI 250V 6A 1.75MM		230V MACHINES ONLY
49	27952	1	CAPACITOR ASM, EMI SPOTTER		230V MACHINES ONLY
50	35354	1	GASKET, VAC HOUSING 3/8"		

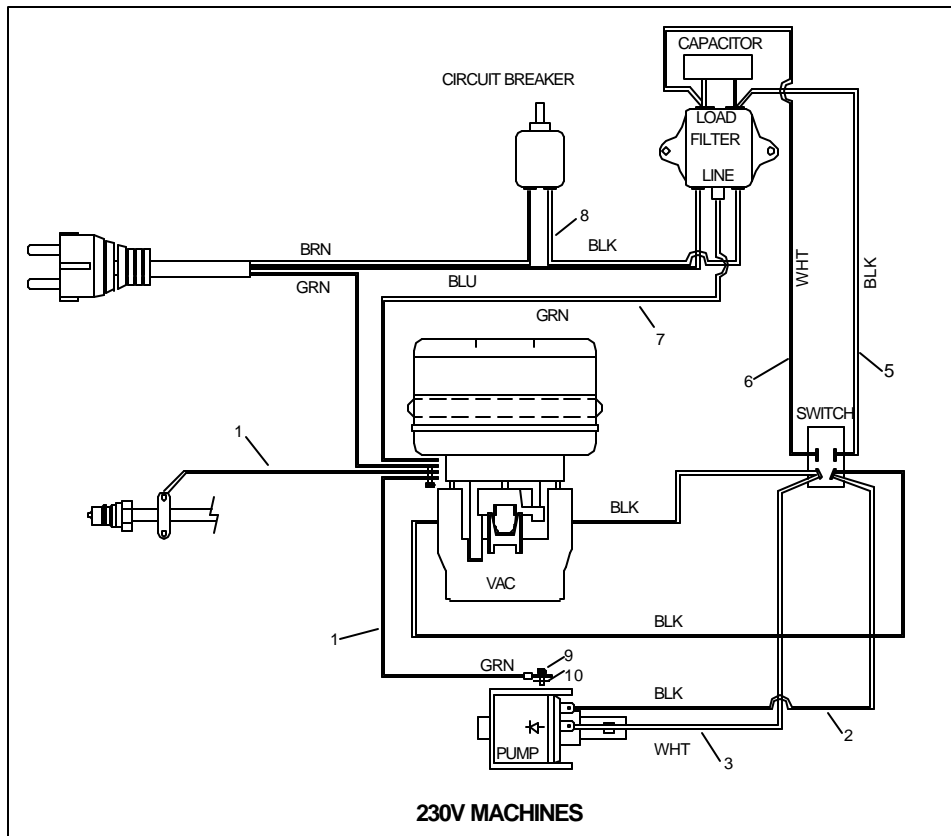
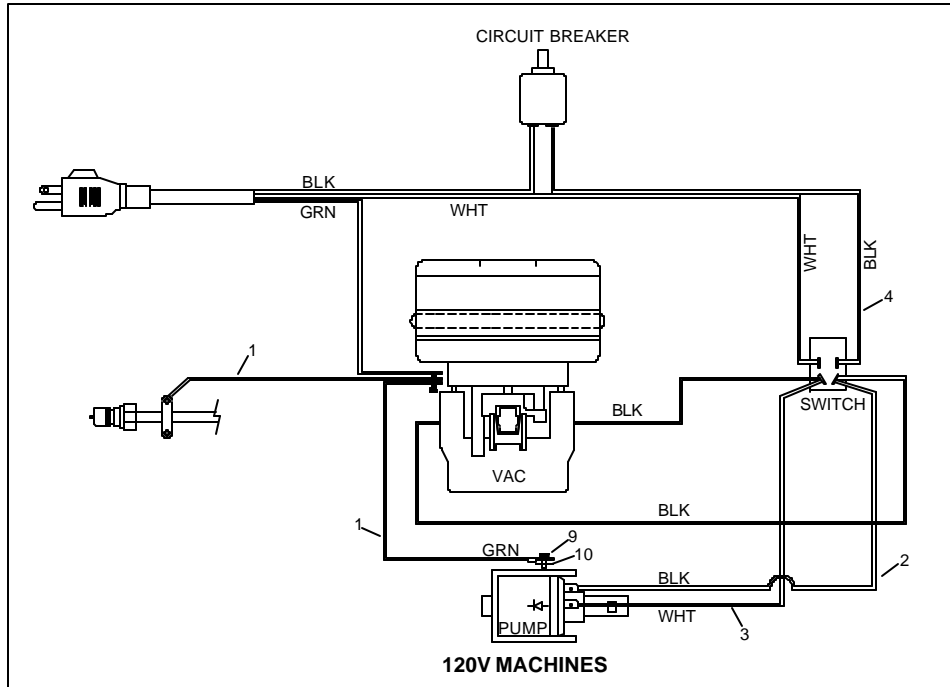
# SOLUTION PUMP GROUP



## SOLUTION PUMP GROUP

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	70528	2	SCREW, 10-32 X 3/8 PPH EX-SEMS		
2	140172	1	BRACKET, SOLENOID PUMP		
3	35187	3	GASKET, TUBE SEAL		
4	40031	2	HOSEBARB, 1/8 MPT 3/8 90°		
5	20042	3	CLAMP, HOSE		
6	39326	1	HOSE, 3/8" WIREBOUND X 8.8"		
7A	250-78	1	PUMP, 110/120 60HZ FLOJET		
7B	250-78A	1	PUMP, 220/240V 50 HZ FLOJET		230V MACHINES ONLY
8	39174	1	HOSE, 3/8" WIREBOUND X 2.6"		
9	87016	2	WASHER, #10 EXT. TOOTH LOCK		

# WIRING DIAGRAM

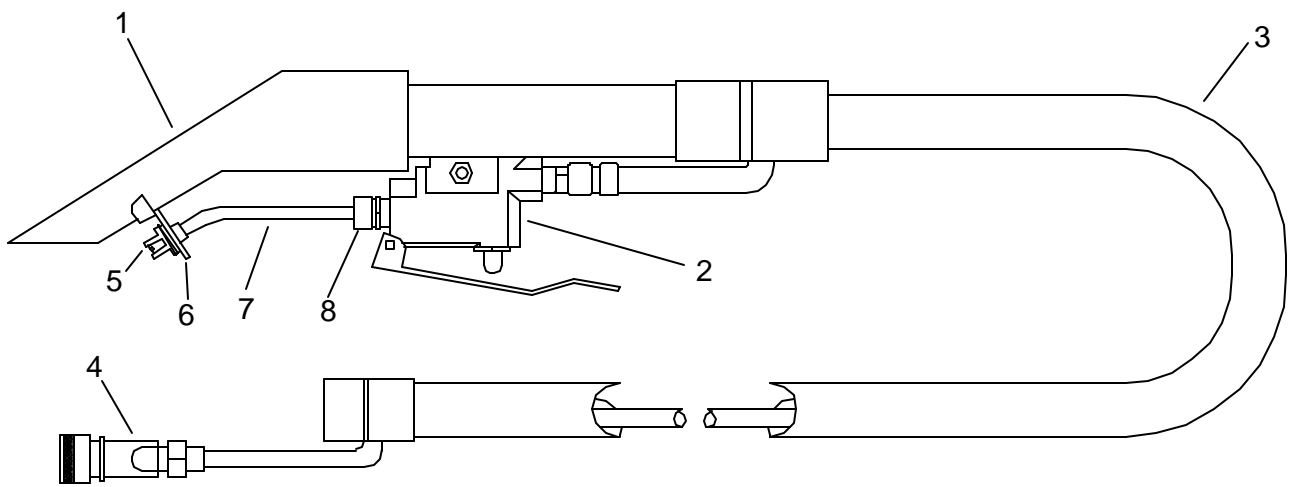




## WIRING PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO.	NOTES:
1	88884	2	WIRE, 14" GRN/18 76010 X 76010		
2	880430	1	WIRE, 13" BLK/18 76050 X 76029		
3	880431	1	WIRE, 13" WHT/18 76050 X 76029		
4	880432	1	WIRE, 9" BLK/18 76029 X 76029		
5	880433	1	WIRE, 9" BLK/18 76050 X 76029		
6	880434	1	WIRE, 9" WHT/18 76050 X 76029		
7	880436	1	WIRE, 10" GRN/18 76022 X 76010		
8	880435	1	WIRE, 12" BLK/18 76029 X 76022		
9	70323	1	SCR, 10-32 X 1/4 PHTR PLTD		
10	87016	1	WASHER, #10 LOCK EXT STAR SS		

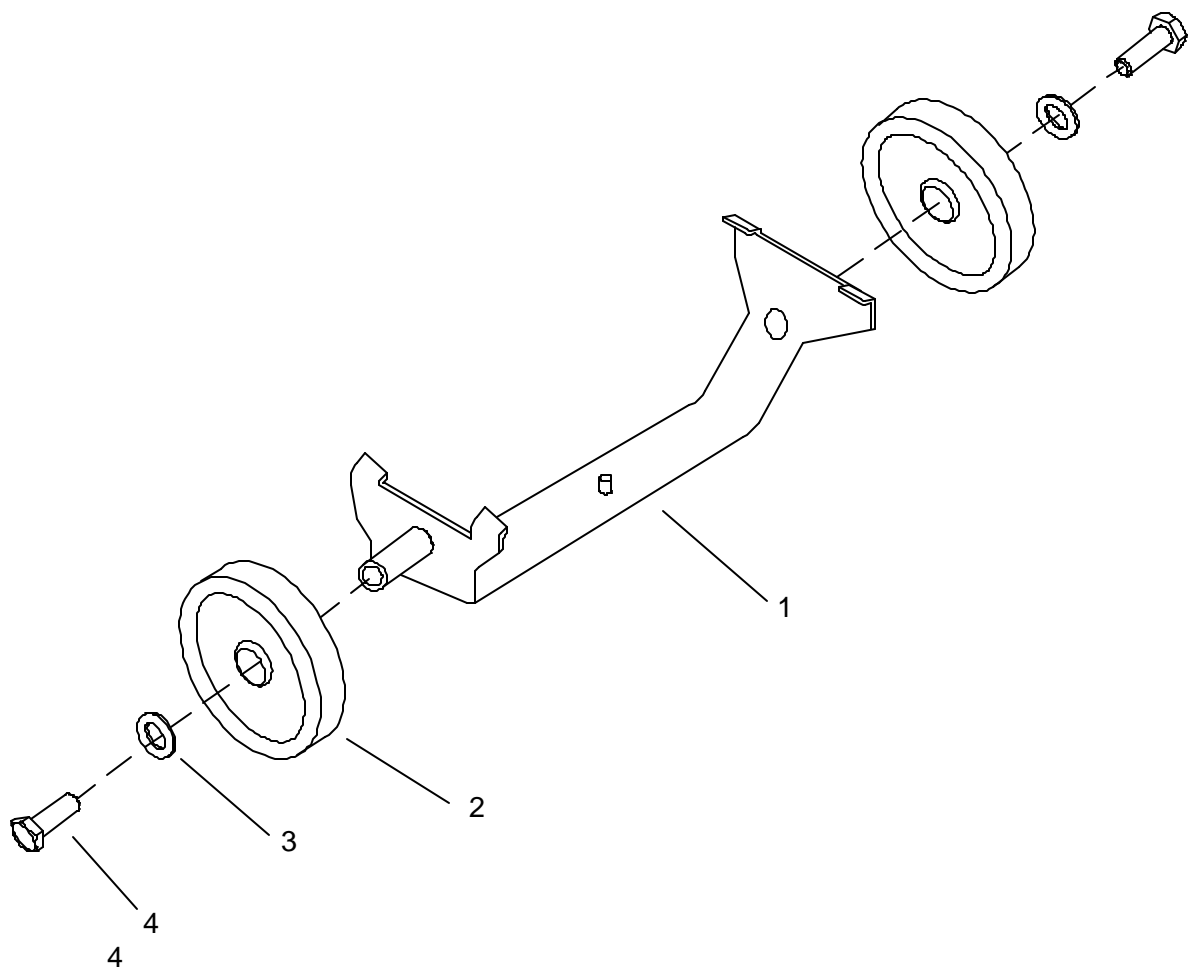
# HAND TOOL



**HAND TOOL**

REF	PART NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	41536	HOUSING, HANDTOOL SPOTTER OKA		
2	84200	VALVE ASM, SPOTTER OKA		
3	39712	HOSE ASM, VAC/SOLUTION OKA		
4	270-11	NIPPLE, 1/8 FPT QD FEM BRASS		
5	44100	JET, ASM W/O RING OKA		
6	629998	PLATE, RETAINER W/HARDWARE OKA		
7	54202	MANIFOLD, SPOTTER OKA		
8	34438	FTTG, 1/8MPT X 3/16 COMP OKA		
9	HTO	HAND TOOL, SPOTTER OKA		ENTIRE ASSEMBLY AS KIT

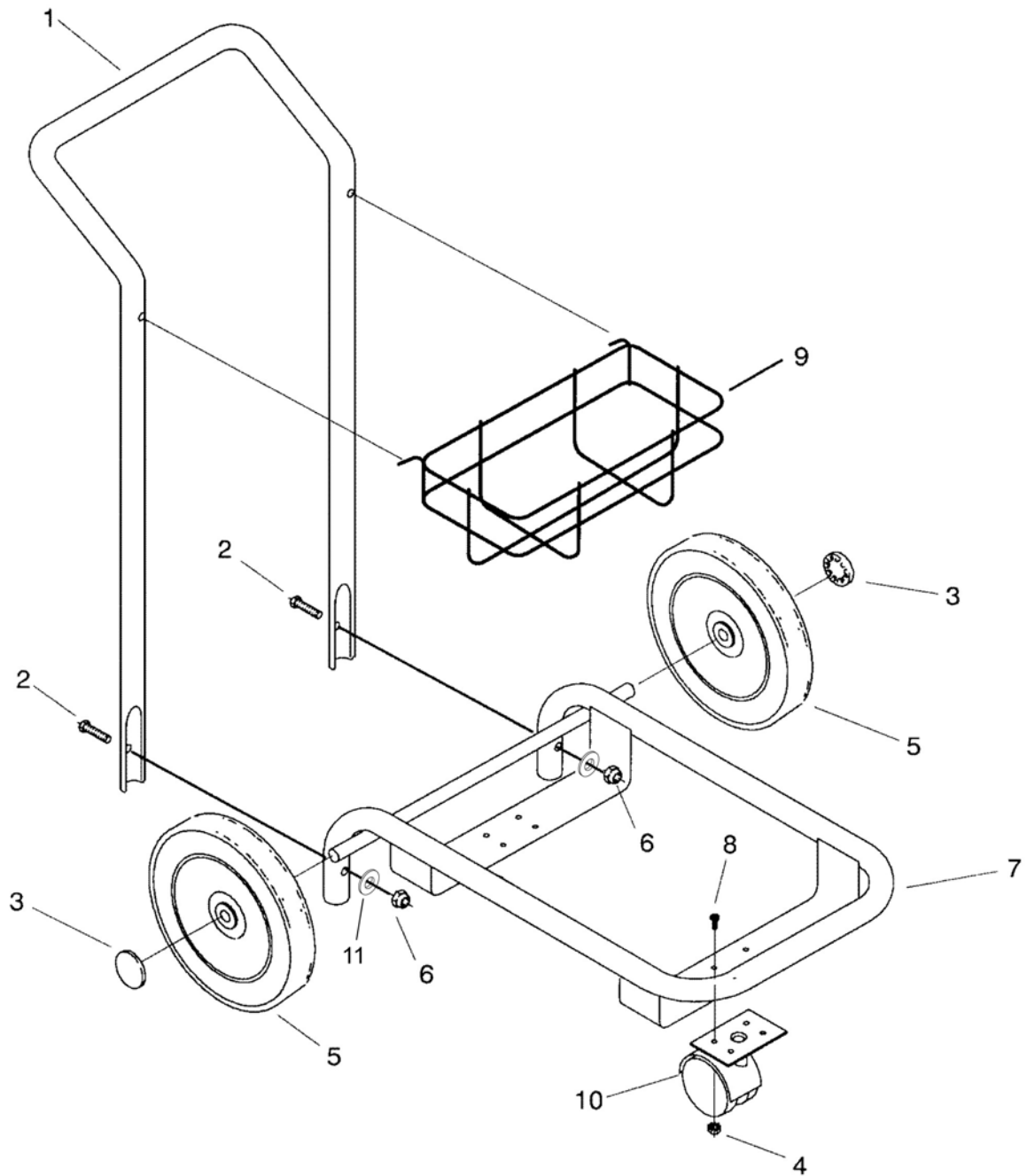
# MINI CART



**MINI CART**

REF	PART NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	62846	PLATE, WELDMENT		
2	89086	WHEEL, 5"D X 1" X .5" ID GRY		
3	87054	WASHER, M8 FLAT DIN125A PLT		
4	70262	SCR, M8 X 20 HHMS PLTD		
	PMCT	PRESTO MINI CART		ENTIRE ASSEMBLY AS KIT

# CART



**CART**

REF	PART NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	78310	TUBE, CART HANDLE		
2	70010	SCREW, 1/4-20 X 1.5 TAP PLTD.		
3	57196	NUT, 1/2 STAR LOCK PUSH-ON		
4	57104	NUT, 10-32 HEX W/ STAR WASHER		
5	89048	WHEEL		
6	57047	NUT, 1/4-20 LOCK		
7	27637	BASE, CART PRESTO		
8	70088	SCREW, 10-32 X 1/2 PHMS		
9	140088	BASKET, 3 BOTTLE		
10	18010	CASTER, SWIVEL		
11	87013	WASHER, 1/4 ID X 5/8 OD SS		
	PCT	SPOTTER CART		ENTIRE ASM AS KIT

## **SUGGESTED SPARE PARTS**

REF	PART NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	72194	SWITCH, DPST 250V 16(4) SPLASH		
2	53137	VAC MOTOR, 120V 2ST LNP		
3	53138	VAC MOTOR, 230V 2ST LNP		
4	250-78	PUMP, 110/120 60HZ FLOJET		
5	250-78A	PUMP, 220/240V 50HZ FLOJET		
6	140687	BRUSH SET, 120V VAC, WINDSOR		120V MOTOR ONLY
7	140688	BRUSH SET, 230V VAC, WINDSOR		230V MOTOR ONLY