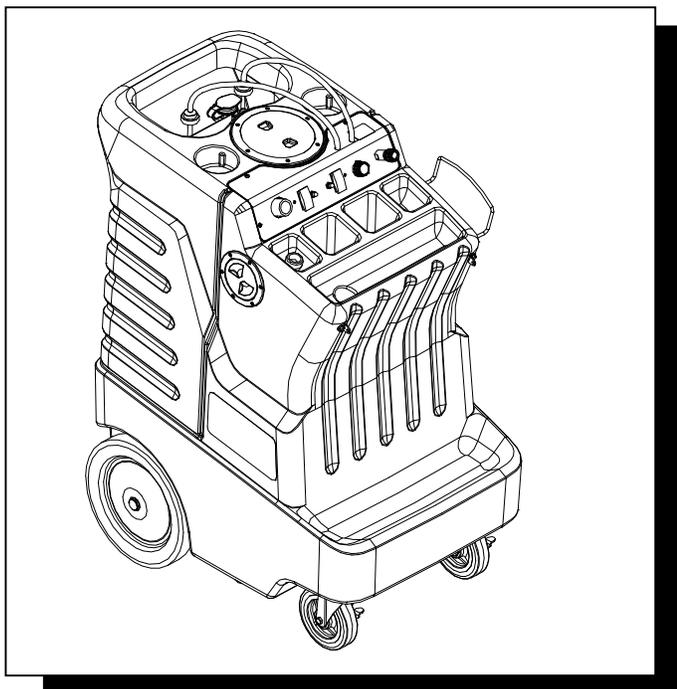




Operating Instructions (ENG)



MODEL : CMPS  
10070050

CMPSR  
10070080

FROM SN: 1000170681

---

*Read instructions before operating the machine.*

# MACHINE DATA LOG/OVERVIEW

MODEL \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

SALES REPRESENTATIVE # \_\_\_\_\_

Copyright 2003 Windsor Industries, Printed in USA

## YOUR DEALER

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

## OVERVIEW

The Compass™ is a multi-functional cleaning machine intended for commercial use. The appliance applies chemical at low pressure and uses high pressure to clean with. Then the soiled water is vacuumed back into the recovery tank.

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# HOW TO USE THIS MANUAL

This manual contains the following sections:

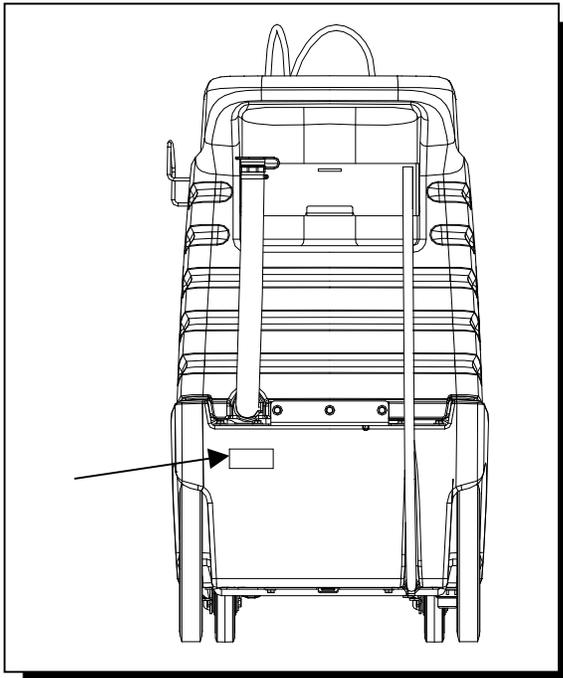
- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

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 Windsor 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 _____
<small>Copyright 2003 Windsor Industries, Printed in USA</small>

The model and serial number of your machine is on the bottom back-end of the machine.



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

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

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Vacuum Motor
- Solution Pump
- Daily Maintenance
- Periodic Maintenance
- Service Schedule
- Machine 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. 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 number 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.

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.

**Do not** allow machine to be used as a toy. **Close attention** is necessary when used by or near children.

**Do not** point spray gun at people.

**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.

**Do not** vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.

This machine is not suitable for picking up health endangering dust.

**Turn off** all controls before unplugging.

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

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

Maintenance and repairs must be done by qualified personnel.

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

## SAVE THESE INSTRUCTIONS

## **HAZARD INTENSITY LEVEL**

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

### **HAZARD INTENSITY LEVEL**

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

#### **⚠ WARNING**

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

#### **⚠ CAUTION**

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

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

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

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

**DO NOT OPERATE MACHINE:**

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects.

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

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

## GROUNDING INSTRUCTIONS

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

#### **ELECTRICAL:**

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

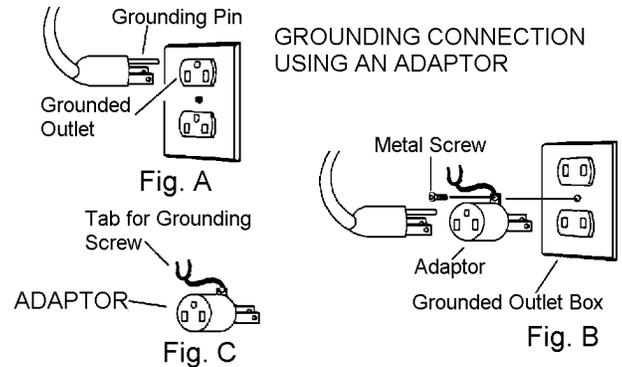
#### **EXTENSION CORDS:**

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

#### **GROUNDING INSTRUCTIONS:**

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

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig. C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or wire extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

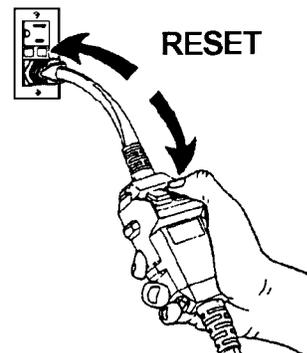


Note: Adaptors are not allowed in Canada.

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

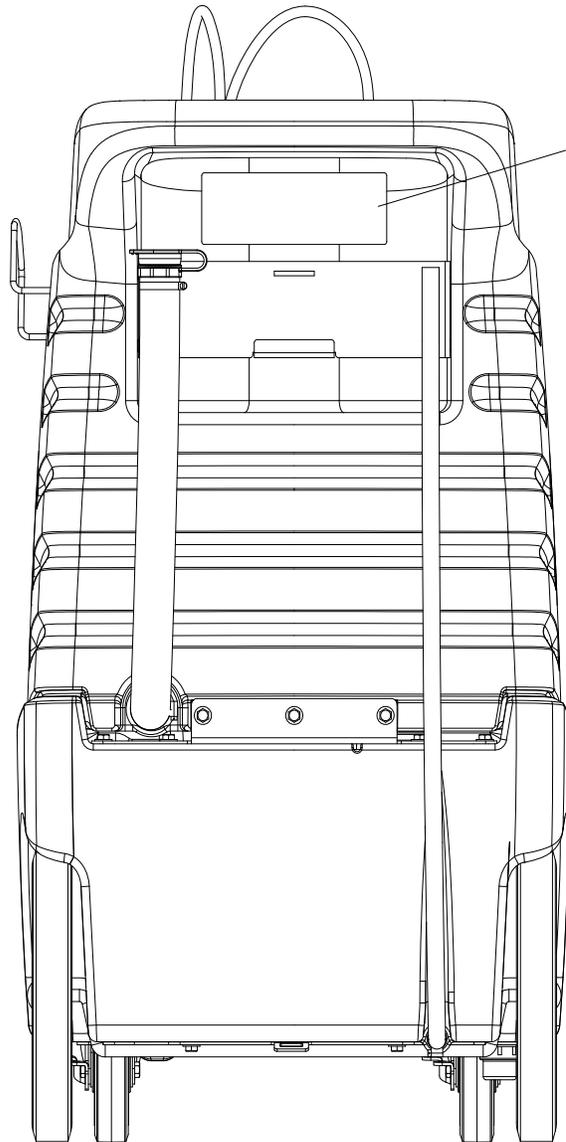
#### **GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION**

This pressure washer is provided with a (GFCI) built into the plug of the power supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection. If the GFCI is not the AUTOMATIC RESET TYPE, it must be manually TESTED and RESET each time the cleaning system is plugged in. Press firmly to assure internal spring activates switch. Push "test" then push "reset". Motor will not start if GFCI does not reset. Check circuit breakers or outlet. If circuit breaker is not tripped and unit will not reset, contact local service center.



## SAFETY LABEL LOCATION

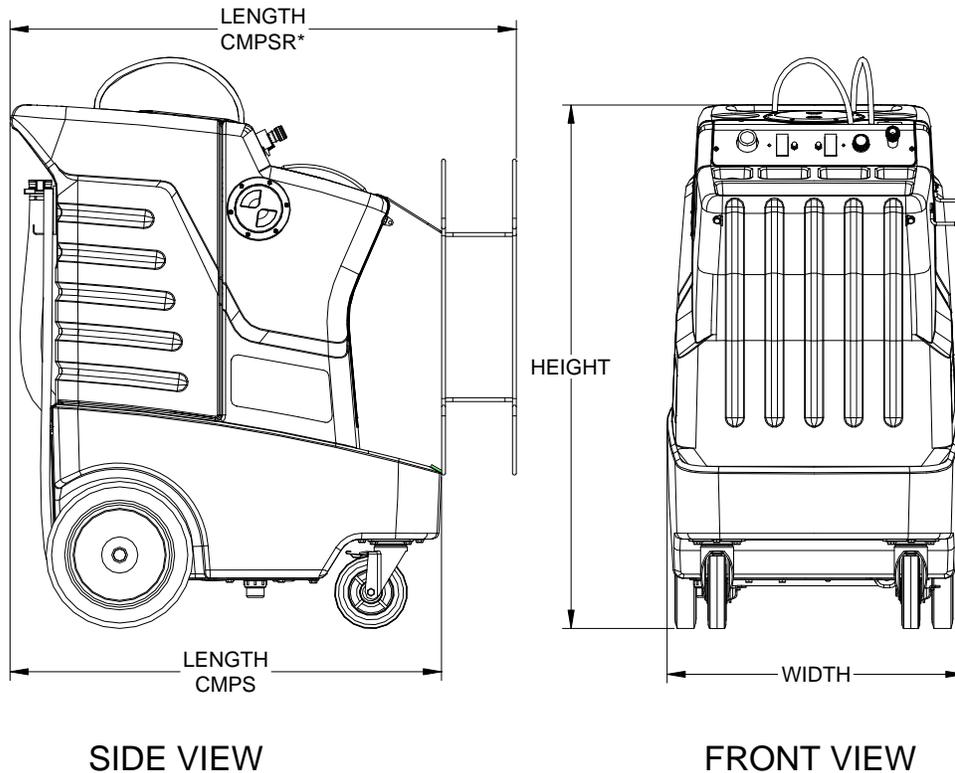
*NOTE: These drawings indicate the location of safety labels on the Compass™. If, at any time, the labels become illegible contact your Windsor representative for prompt replacement.*



WARNING LABEL 86242230  
PRV NO. 500009

## TECHNICAL SPECIFICATIONS

ITEM	DIMENSION/CAPACITY
Electrical	115V, 12A, 60HZ
Electric Pump Motor	1/3hp, 1725rpm
Solution Pump	500psi (34 bars), Axial plunger
Electric Vacuum Motor	2stage, 1.25hp (2.80m <sup>3</sup> /min.)
Waterlift	82 in. (208 cm)
Solution Capacity	29 gallons (111L)
Recovery Capacity	19 gallons (70L)
Wheels	
- Front (2)	6 in. dia. (15.24cm) X 1.5
- Rear (2)	12 in. dia. ( 30.48cm)X 1.75
Dimensions – Weight (CMPS)	155 lb. (70kg)
Dimensions – Weight (CMPSR)	157 lb. (71kg)
Dimensions – Length (CMPS)	36 in. (91.4cm)
Dimensions – Length (CMPSR)	41.5 (105.4 cm)
Dimensions - Height	43 in. (109.2cm)
Dimensions - Width	24.75 in. (62.87cm)
Power Cable	50 ft. (127m) 14 gauge



\*NOTE: Hose rack standard **ONLY** on CMPSR.

### SPECIAL NOTES:

The sound pressure level at 1m from the machine was measured to be 79 dBA. This was a nearfield, broadband measurement taken in a typical industrial environment on a tile floor. This appliance contains no possible source of impact noise. The instantaneous sound pressure is below 63 Pa.

The weighted root mean square acceleration at the operator's arms was measured to be below 2.5m/s<sup>2</sup>. This was a tri-axial, third-octave-band measurement made during normal operation on a composite tile floor. The measurement and related calculations were made in accordance with ANSI S3.34-T986.

## **HOW THE MACHINE WORKS**

The Compass™ is a multi-functional cleaning machine intended for commercial use. The appliance applies chemical at low pressure and uses high pressure to clean with. Then the soiled water is vacuumed back into the recovery tank.

The machine's primary systems are the clean water system, recovery system, chemical system and pressure washer system.

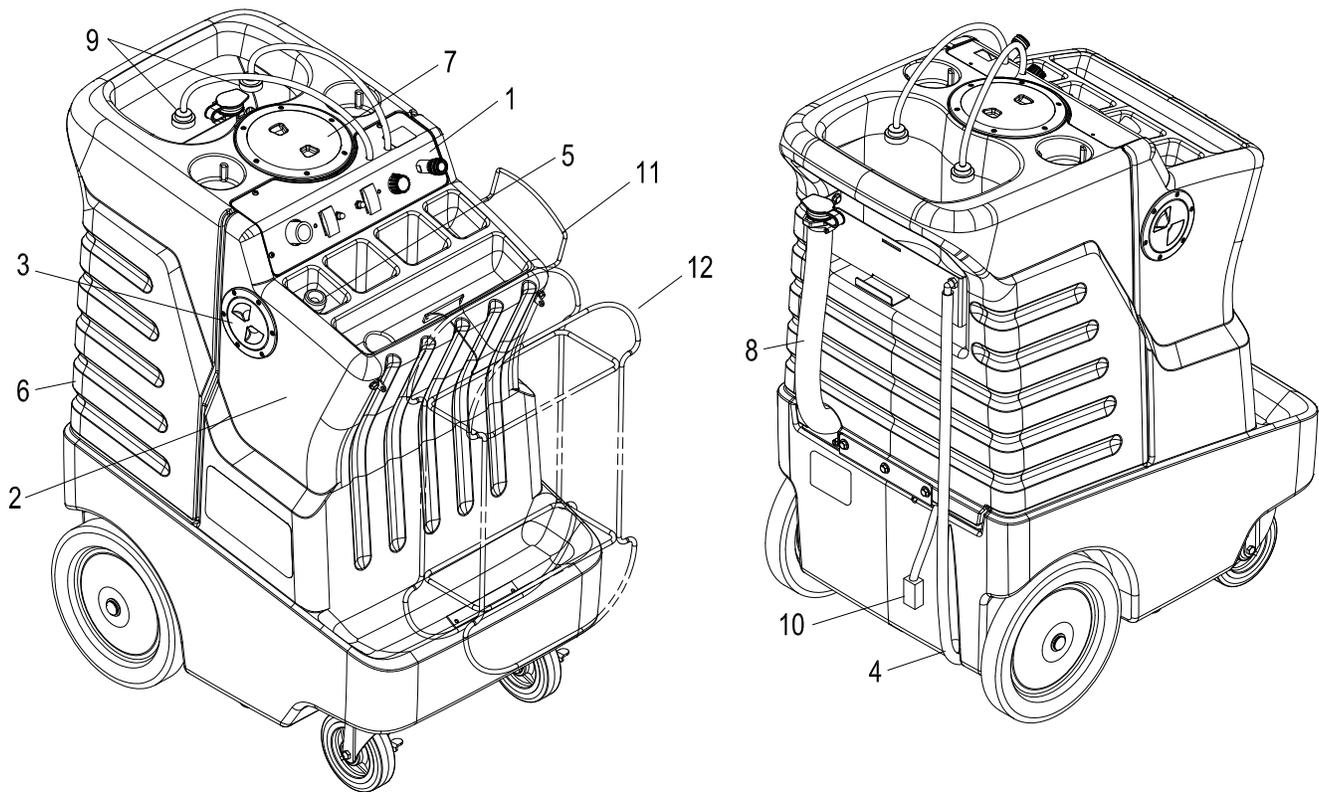
The function of the clean water system is to store clean water and deliver it to the available tools. The clean water system consists of the clean water tank, strainer and check valve. The clean water tank stores water until it is delivered to the tools. The strainer protects the check valve and pump from debris.

The function of the recovery system is to vacuum the soiled water back into the recovery tank. The recovery system consists of the wand and wheeled squeegee, vacuum motor, float shut-off and recovery tank. The wand and wheeled squeegee wipes the dirty solution off the floor. The vacuum motor provides suction to draw the dirty solution off the floor and into the recovery tank. The float shut-off protects the vacuum fan from over filling. The recovery tank stores the dirty solution.

The function of the chemical system is to dispense chemical into the clean water system. The chemical system consists of the chemical reservoir, chemical cap and a chemical-metering selector. The chemical reservoir stores and dispenses chemical into the clean water system. The chemical-metering selector meters the amount of chemical and selects between chemical A or B and turn chemical off.

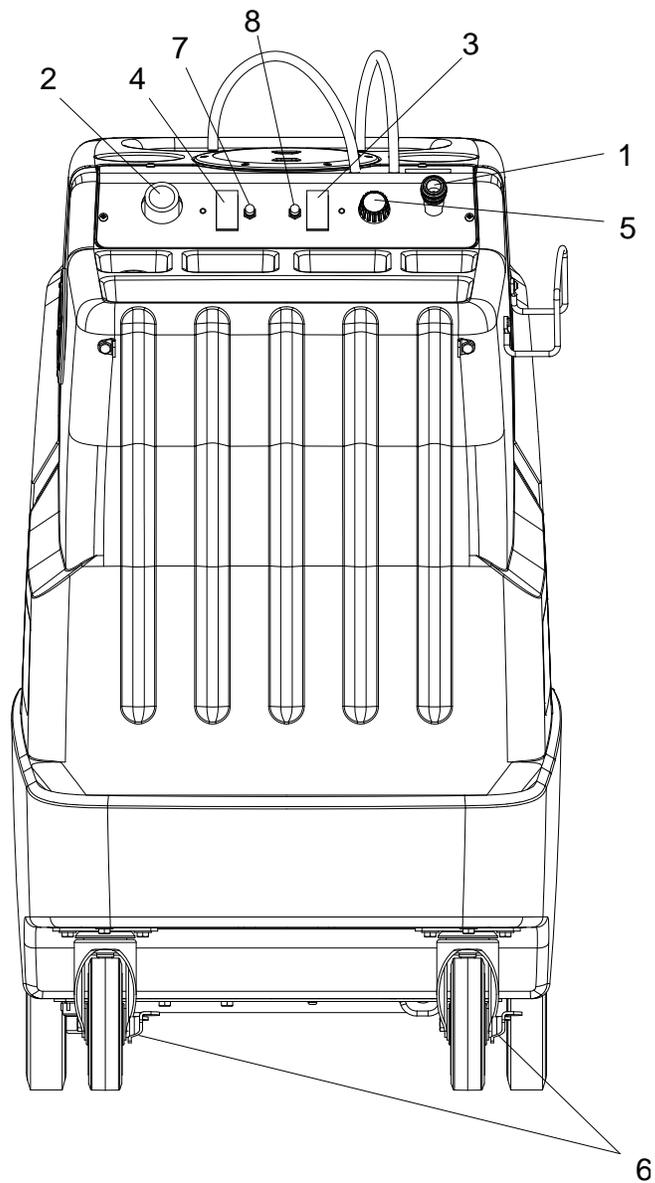
The function of pressure washer system is to clean fixtures and other surfaces. The pressure washer system consists of a pump, high-pressure hose and spray gun. The pump delivers cleaning solution to the tools. The high-pressure hose connects the pump to the spray gun. The spray gun is an adjustable Hi-Lo that applies clean water and chemical to the surface being cleaned.

## COMPONENTS



- 
- |                             |   |
|-----------------------------|---|
| 1. Control Panel            | 7. Recovery Tank Lid                    |
| 2. Solution Tank            | 8. Recovery Tank Drain Hose             |
| 3. Solution Tank Lid        | 9. Chemical Siphon Caps                 |
| 4. Solution Tank Drain Hose | 10. Electrical Cord                     |
| 5. Solution Tank Fill Hose  | 11. High Pressure Hose Storage          |
| 6. Recovery Tank            | 12. Vac Hose Rack (Standard CMPSR only) |

## CONTROLS



- 
- |   |                           |
|---|---------------------------|
| 1. Solution Accessory Tool Hook-Up      | 6. Caster Lock            |
| 2. Vacuum Accessory Tool Hook-Up        | 7. Vacuum Circuit Breaker |
| 3. Pump Switch                          | 8. Pump Circuit Breaker   |
| 4. Vacuum Switch                        |                           |
| 5. Chemical Selector and Metering Valve |                           |

## CONTROLS

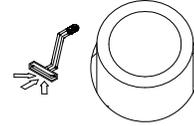
### 1. SOLUTION ACCESSORY TOOL HOOK-UP

Used for various auxiliary-cleaning tools.



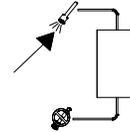
### 2. VACUUM ACCESSORY TOOL HOOK-UP

To use accessory tool, remove hose from vac shoe and attach to accessory tool adaptor.



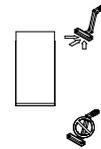
### 3. PUMP SWITCH

Turns the pump On and Off.



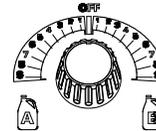
### 4. VACUUM SWITCH

Turns the vacuum motor On and Off.



### 5. CHEMICAL SELECTOR AND METERING VALVE

Meters the **amount** of chemical being dispensed and selects between chemical A or B and turn off.



### 6. CASTER LOCK

Locks the wheels in place to keep the machine from moving.

### 7. VACUUM CIRCUIT BREAKER

10 Amp. Protects the vacuum motor.



### 8. PUMP CIRCUIT BREAKER

6 Amp. Protects the pump motor.



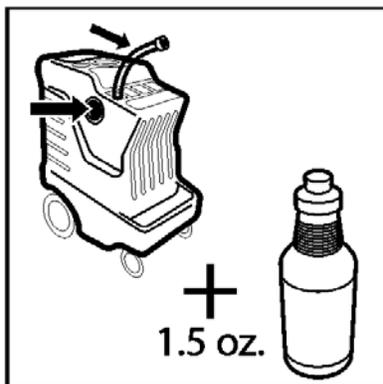
## OPERATIONS

### FILLING THE MACHINE

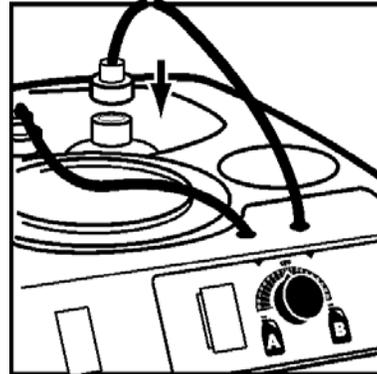
Do not put defoamer, solvents spotter or prespray chemicals in the solution tank.



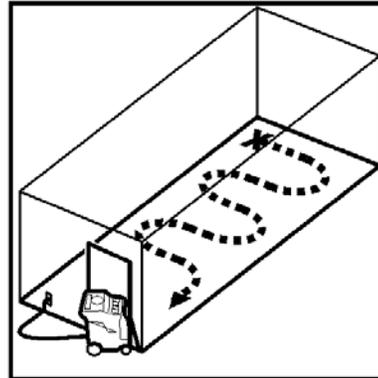
1. Always use gloves and eye protection. Never spray solution towards people.



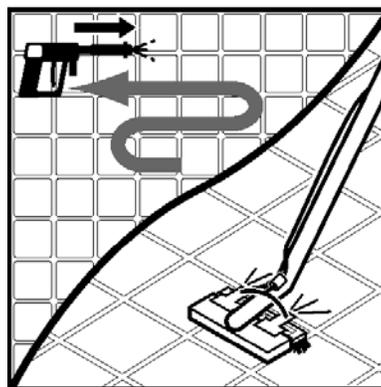
2. To fill Use fill hose or pour directly into solution tank. Use COLD WATER. Add 1 ½ oz of **CompassRinse**™ to each full solution tank.



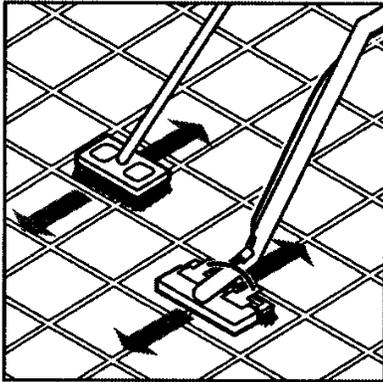
3. Attach the adapter cap and intake hose to the **Compass**™ Chemical bottle. Refer to the **Compass**™ Chemical Label for the desired dilution.



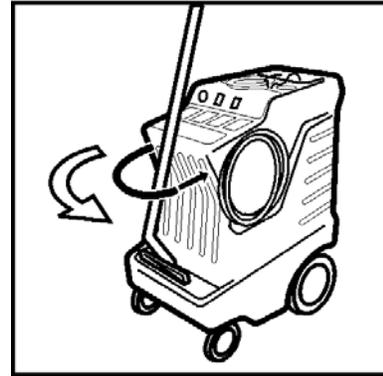
4. Position the **Compass**™ machine in the doorway, lock front casters. Start at furthest point in the room and work towards the door.



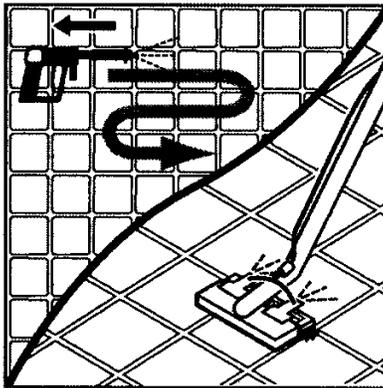
5. Always Spray chemical using low pressure.



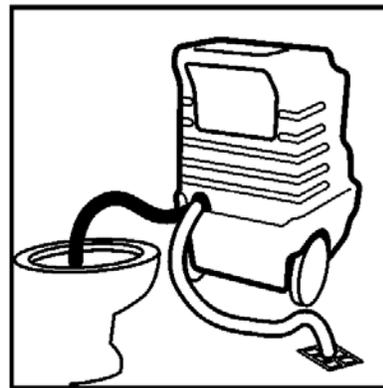
7. Use brush or grout tool for heavy soiled areas.



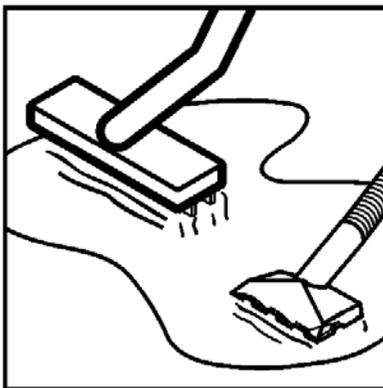
10. Store and secure hoses and tools neatly.



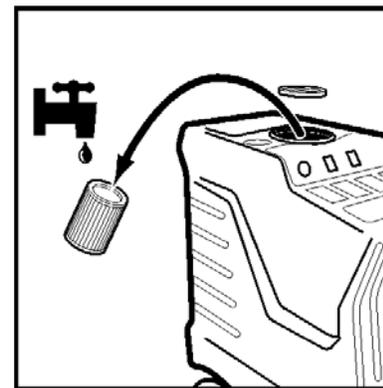
8. Turn Chemical off. Pressure clean by rinsing surfaces at high pressure.



11. Drain machine at proper disposal areas. Use pressure gun to rinse and clean recovery tank.



9. Use Squeegee or Gulper tool to remove standing water.



12. When using dry filter, gently remove and wash with water after every use. Allow to dry before re-using.

## OPERATIONS

### WARNING:

Care must be exercised in the use of all chemicals. Chemicals are poisonous and can pose a health risk. Read and follow manufacturers instructions regarding dangers and correct usages.

### CAUTION:

The internal parts of the pump used in the machine are suitable for use with most carpet cleaning chemicals. But they are susceptible to chemical attack from some cleaning substances, such as hydrocarbon solvents and chlorinated bleaches. These non-compatible materials are not of the type used for carpet cleaning.

#### CHEMICALS

Suitable Chemicals      Non-Compatible

<i>Alkalis</i>	<i>Aldehydes</i>
<i>Detergents</i>	<i>Aromatics Hydrocarbons</i>
<i>Hydroxides</i>	<i>SP Butyls</i>
<i>Soaps</i>	<i>Carbon Tetrachloride</i>
<i>Vinegar</i>	<i>Clorox*</i>
	<i>Chlorinated Bleaches</i>
	<i>Chlorinated Hydrocarbons</i>
	<i>Lysol*</i>
	<i>Methyl Ethel Ketone (MEK)</i>
	<i>Perchlorethylene (perc)</i>
	<i>Phenolics</i>
	<i>Trichlorethylene</i>
	<i>D-Limonene</i>

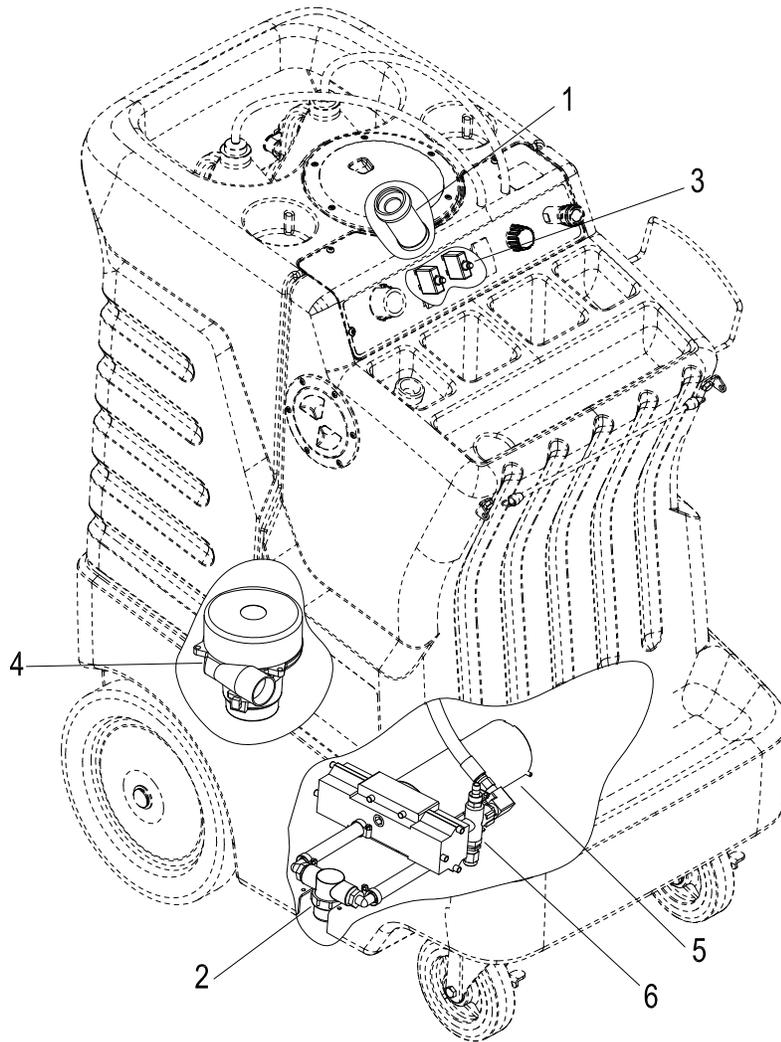
Only use chemicals approved for use with this machine. Use of non-compatible chemicals may cause machine damage and will not be covered under the warranty. Carefully read ingredients on manufacturer's label before using any product in this machine.

### WARNING:

Do not let pump run dry.

### WARNING:

Do not let pump run unattended.



- 1. Float Shut-Off
- 2. Strainer
- 3. Circuit Breakers
- 4. Vacuum Motor

- 5. Pump
- 6. Adjustable Unloader Valve

## MAINTENANCE

### 1. FLOAT SHUT-OFF

The float shut-off is located inside the recovery tank. The purpose of the float shut-off is to notify the user that the recovery tank is full. Remove daily and clean any debris for maximum airflow.

### 2. STRAINER

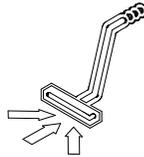
The strainer is located on the lower right side between the front and rear wheels. The strainer protects the check valve and pump from debris. If there is little or no solution flow to the ground, check the strainer for debris. Drain the solution tank and clean the solution strainer. To remove the strainer, turn the bottom part of the strainer counterclockwise until the bottom is separated. Clean out the debris from the wire mesh and reassemble. Make sure the o-ring gasket is in place when reassembled.

### 3. CIRCUIT BREAKERS

Circuit breakers interrupt the flow of power in the event of an electrical overload. When a circuit breaker is tripped, reset it by pressing the exposed button. If a circuit breaker continues to trip, the cause of the electrical overload should be found and corrected.



6 Amp. Protects the pump motor.



10 Amp. Protects the vacuum motor.

## 4. VACUUM MOTOR

(Refer to vacuum group in the parts section of manual).

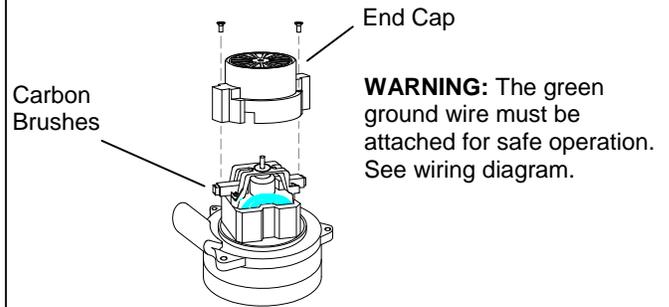
### **⚠ WARNING:**

**ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.**

### VACUUM MOTOR REPLACEMENT

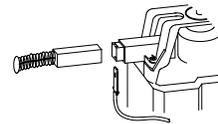
1. Turn off all switches and unplug machine.
2. Remove recovery tank.
3. Remove the 5 screws holding the vacuum motor cover to the solution tank.
4. Locate the vacuum motor wires and disconnect at the connector.
5. Remove the vacuum motor.
6. Reverse process to install.

### Vacuum Motor Carbon Brushes Replacement (Windsor)



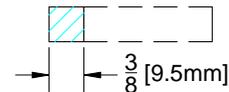
**WARNING:** The green ground wire must be attached for safe operation. See wiring diagram.

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  $\frac{3}{8}$ " (9.5mm) long.

## MAINTENANCE

### 5. PUMP

#### **⚠ WARNING:**

ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

#### SOLUTION PUMP REPLACEMENT

1. Turn off all switches and unplug machine.
2. Tilt machine back so bottom is exposed.
3. Remove the 6 screws that fasten the frame to the solution tank.
4. Remove the solution hoses from the fittings on the pump.
5. Reverse process to install.

### 6. REGULATING UNLOADER

#### **⚠ WARNING:**

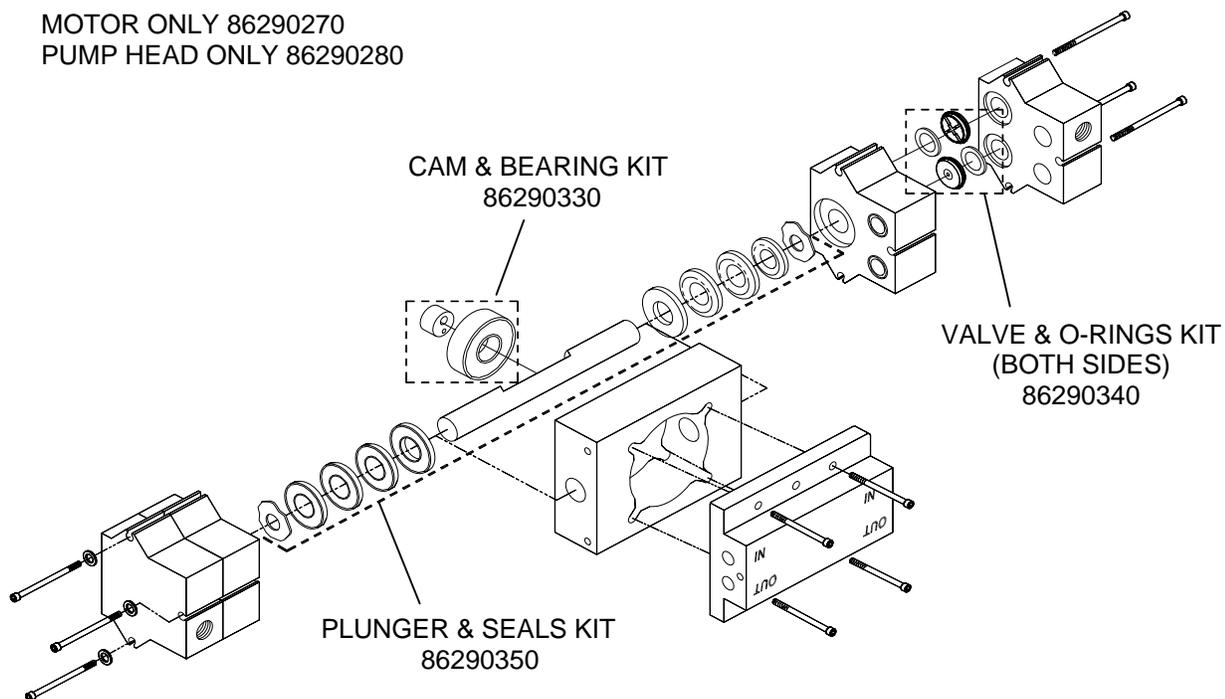
ONLY QUALIFIED MAINTENANCE PERSONNEL ARE TO PERFORM THE FOLLOWING REPAIRS.

#### UNLOADER REPLACEMENT

1. Turn off all switches and unplug machine.
2. Tilt machine back so bottom is exposed.
3. Remove the 6 screws that fasten the frame to the solution tank.
4. Remove the solution hoses from the fittings on the pump.
5. Remove the unloader.
6. Reverse process to install.

## PUMP REPLACEMENT KITS

MOTOR ONLY 86290270  
PUMP HEAD ONLY 86290280



# MAINTENANCE

## PERIODIC MAINTENANCE

Twice a month, flush a white vinegar solution (one quart vinegar to two gallons of water) or anti-browning solution (mixed as directed) through the machine. This will prevent build-up of alkaline residue in the system. If spray jets become clogged, remove the spray tips, wash them thoroughly, and blow dry.

*NOTE: Do not use pins, wires, etc. to clean nozzles as this could destroy the spray pattern.*

Periodically inspect all hoses, electrical cables and connections on your machine. Frayed or cracked hoses should be repaired or replaced to eliminate vacuum or solution pressure loss. The electrical cable must be well insulated and cable connector screw kept tight. If the cable insulation is broken or frayed, repair or replace immediately. Don't take chances with electrical fire or shock.

## DAILY/REGULAR MAINTENANCE

Before making any adjustments to the machine, disconnect the power cord from the electrical source.

1. Empty unused cleaning solution from the solution tank.
2. Inspect and clean filter screen in solution tank.
3. Flush pumping system with 4 to 7 liters of clean water.
4. After each use, rinse tank with fresh water. Periodically inspect the recovery tank and decontaminate if necessary, using a Hospital Grade Virucide or a 10-1 bleach to water solution. Waste water should be disposed of properly.
5. Remove filter to clean. Filters used for wet pick-up including striper must be thoroughly cleaned before being allowed to dry.
6. Check spray jets for full spray pattern.

***NOTE: Worn filters can affect vacuum performance. Replace the filter when it becomes worn out and normal cleaning will not restore vac performance.***

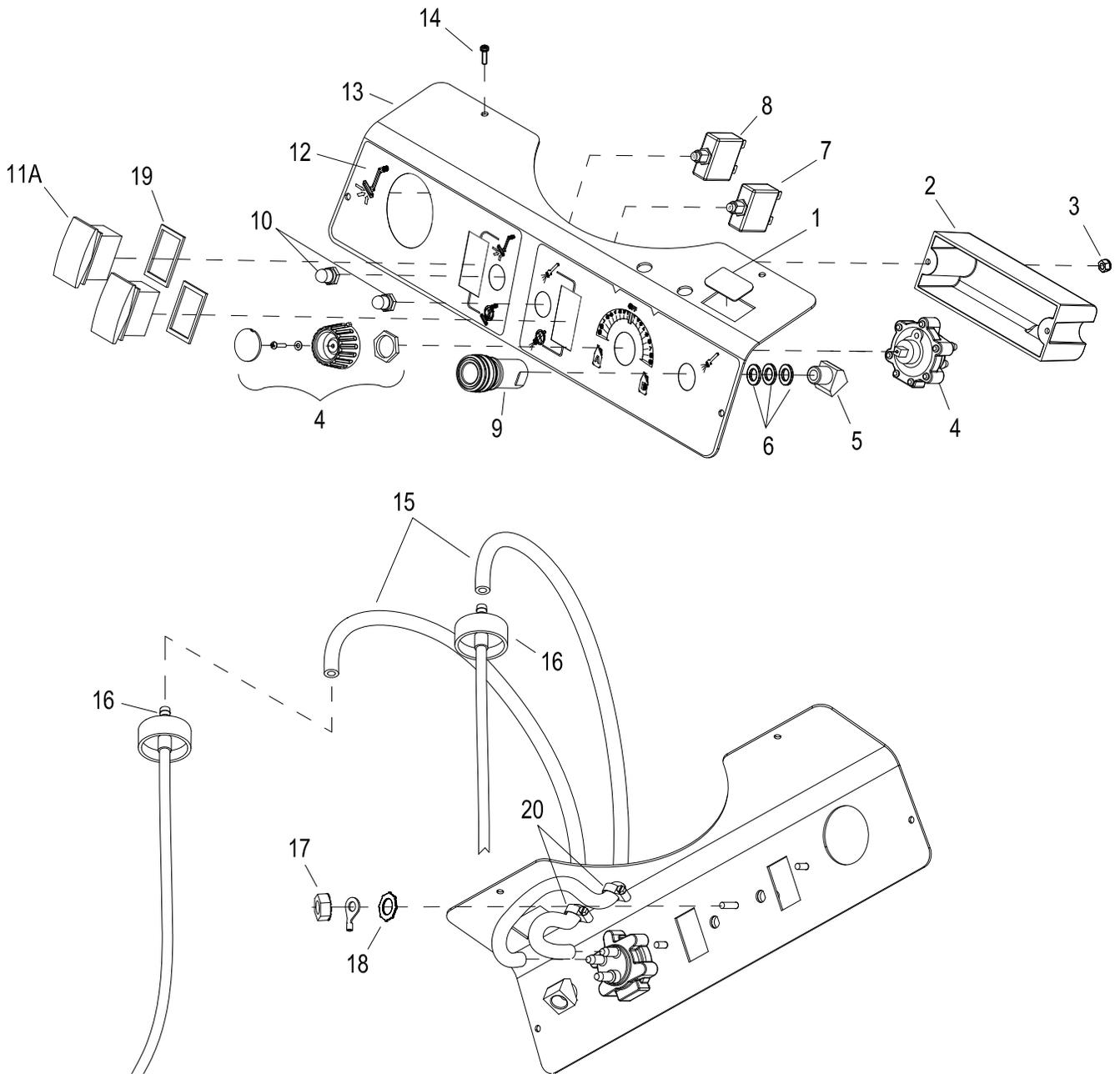
SERVICE SCHEDULE	DAILY	WEEKLY	QUARTERLY
Check machine for cord damage	*		
Check recovery dome and gasket for damage and cleanliness	*		
Check hoses for wear, blockages, or damage	*		
Check handles, switches, and knobs for damage	*		
Check vac motor intake filter and clean	*		
Run one gallon of water 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 cables for fraying		*	
Check overall performance of machine		*	
Check vac motor carbon brushes			*

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Loss of Power	Dead electrical circuit	Check building circuit breaker or fuse box.
	Faulty power cord	Replace
	GFCI breaker is tripped	Reset breaker on power cord
Electrical shock	Equipment not grounding	Follow grounding instructions exactly
	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 or doesn't run	Worn motor brushes	Replace
	Motor worn out	Replace
	Faulty switch	Replace
Loss of vacuum	Loose vacuum dome	Center and seal dome over tank
	Vacuum circuit breaker tripped.	Reset breaker.
	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
	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 runs no solution	Pump inlet screen plugged	Clean inlet screen
	Pump circuit breaker tripped.	Reset breaker.
	Faulty pump switch.	Call for service.
	Faulty pump motor.	Call for service.
	Pump air locked	Press trigger to open valve on cleaning wand to relieve air
	Internal or external solution line damaged and leaking	Replace
Pump runs, loss of pressure	Jet orifice on cleaning wand is too 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)
	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.

**NOTES:**

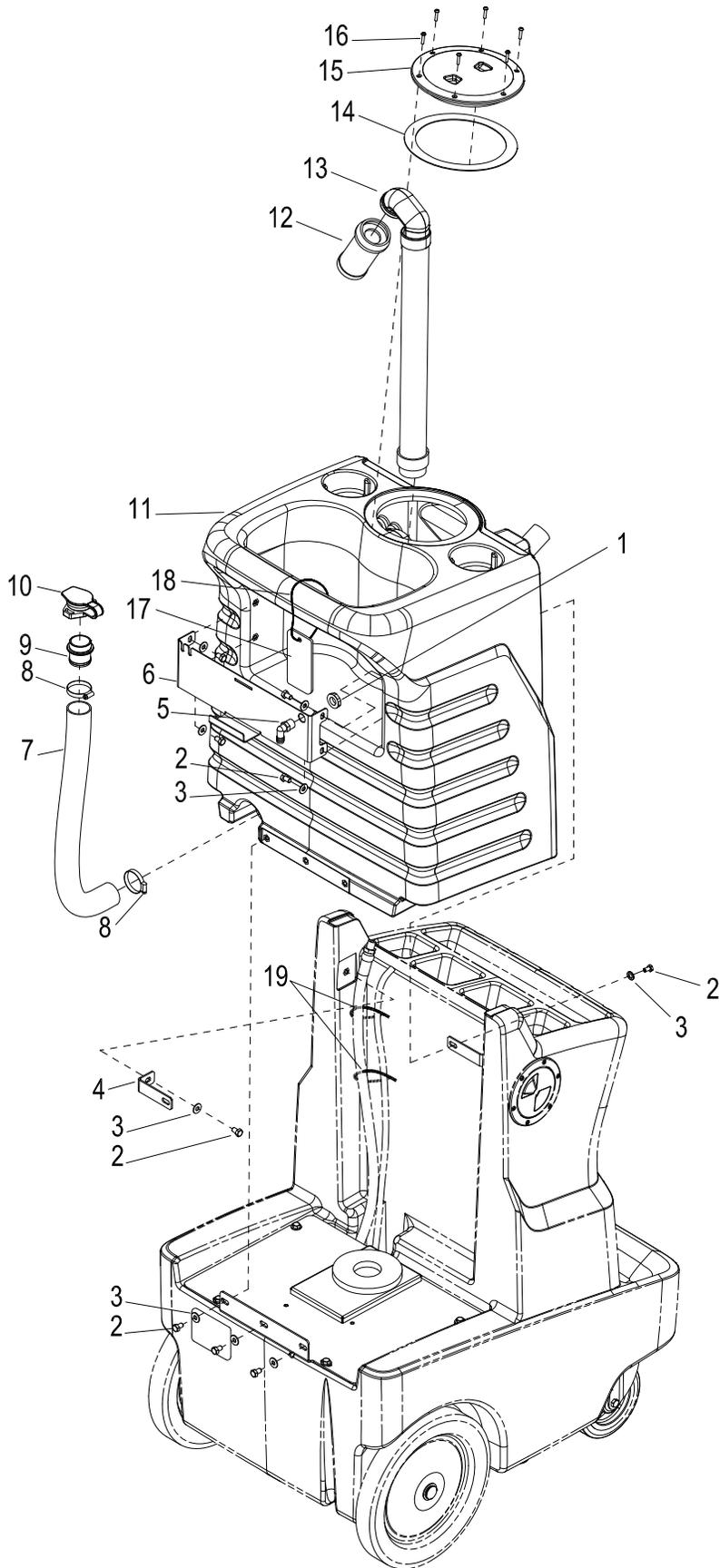
# CONTROLS



## CONTROLS

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86243990	500780	1	LABEL, COVER PANEL		
2	86234690	270012	1	COVER, SWITCH PANEL		
3	86270990	57090	2	NUT, 10-32 HEX NYLOCK SS		
4	86258930	84187	1	VALVE, CHEMICAL METERING		
5	86197390	31021	1	ELBOW, 1/4 NPT 45° STREET		
6	86279560	87178	3	WASHER, 5/8 ID X 1.7 OD 0.05 T		
7	86230210	14832	1	BREAKER, 6A VDE CIRCUIT		
8	86001940	14635	1	BREAKER, 10A CIRCUIT		
9	86002450	22015	1	COUPLER, 1/4 QD		
10	86002010	14942	2	BOOT, 3/8 CIRCUIT BREAKER		
11A	86007130	72128	2	SWITCH, DPDT 2-POSITION PCKER		
11B	86007140	72130	1	SWITCH, SPST 2-POSITION ROCKER		
12	86290050	-	1	LABEL, SWITCH PANEL, CMPS		
13	86078140	61415	1	PANEL, SWITCH CONTROL		
14	86276600	70696	4	SCR, #10 X 3/4 PTHSMS SS		
15	86282280	39634	2	HOSE, 1/4 NYLOBRAID X 23"		
16	86232110	270699	2	CAP, CHEM FEED W/DIP TUBE		
17	86270800	57104	2	NUT, 10-32 W/ STAR WASHER PLTD		
18	86010640	87016	1	WASHER, #10 LOCK EXT STAR SS		
19	86238030	36235	2	GASKET, SWITCH CARLING		
20	86233090	20016	2	CLAMP, 1/4 ID HOSE		

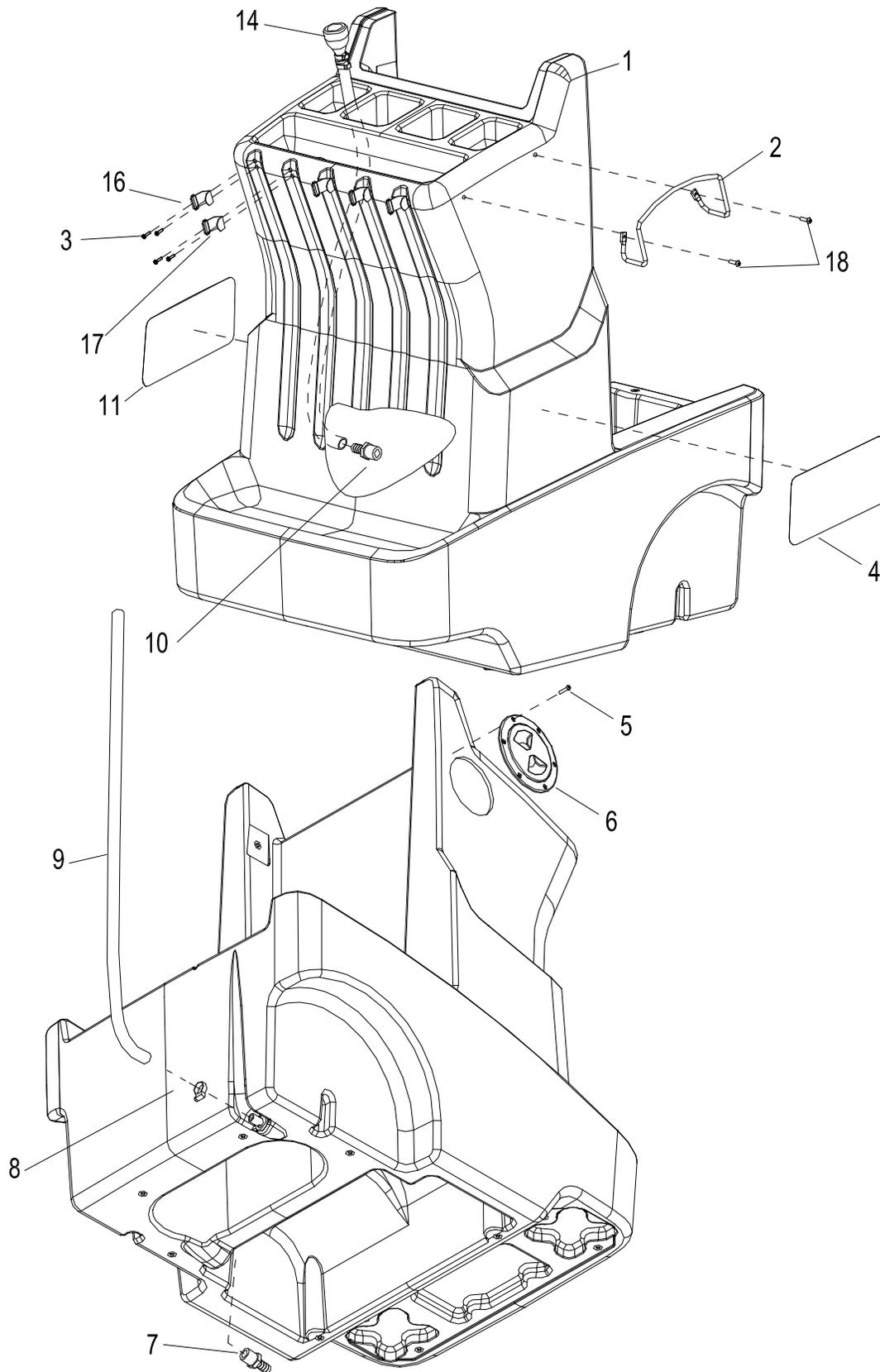
# RECOVERY TANK



## RECOVERY TANK

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86271830	57283	1	NUT, 3/8 NPT PLASTIC		
2	86277040	70781	11	SCR, 5/16-18 X 1/2 HHCS SS NP		
3	86010670	87029	11	WASHER, 5/16 FLAT SS		
4	86070510	140659	2	BRKT, TANK MOUNT		
5	86197940	40027	1	HOSEBARB, 3/8 MPT X 1/2 90° DL		
6	86070450	140651	1	BRKT, UTILITY MOUNT		
7	86004190	39337	1	HOSE, 1.5 BLK VAC X 24"		
8	86177050	03-000176	2	CLAMP, HOSE #20		
9	86004510	41391	1	HOSE, INSERT		
10	86004500	41390	1	HOSE, CAP		
11	86031160	75438	1	TANK, RECOVERY COMPASS		
12	86199840	090-12A	1	FLOAT CAGE ASM, COMPLETE		
13	86033250	66402	1	PIPE ASM, VACUUM STACK		
14	86004000	35255	1	GASKET, TANK LID		
15	86002620	260-64A	1	ACCESS COVER CLEAR 6" W/ RIM		
16	86275800	70546	6	SCR, 8 X 3/4 PFHT/S BLK ZINC		
17	86241450	500806	1	INSTRUCTION CARD, CMPS		
18	86002870	27417	1	CORD, 99807 1/8 X 12"		
19	86264940	27051	2	CABLE TIE, 11.38" UL/CSA		

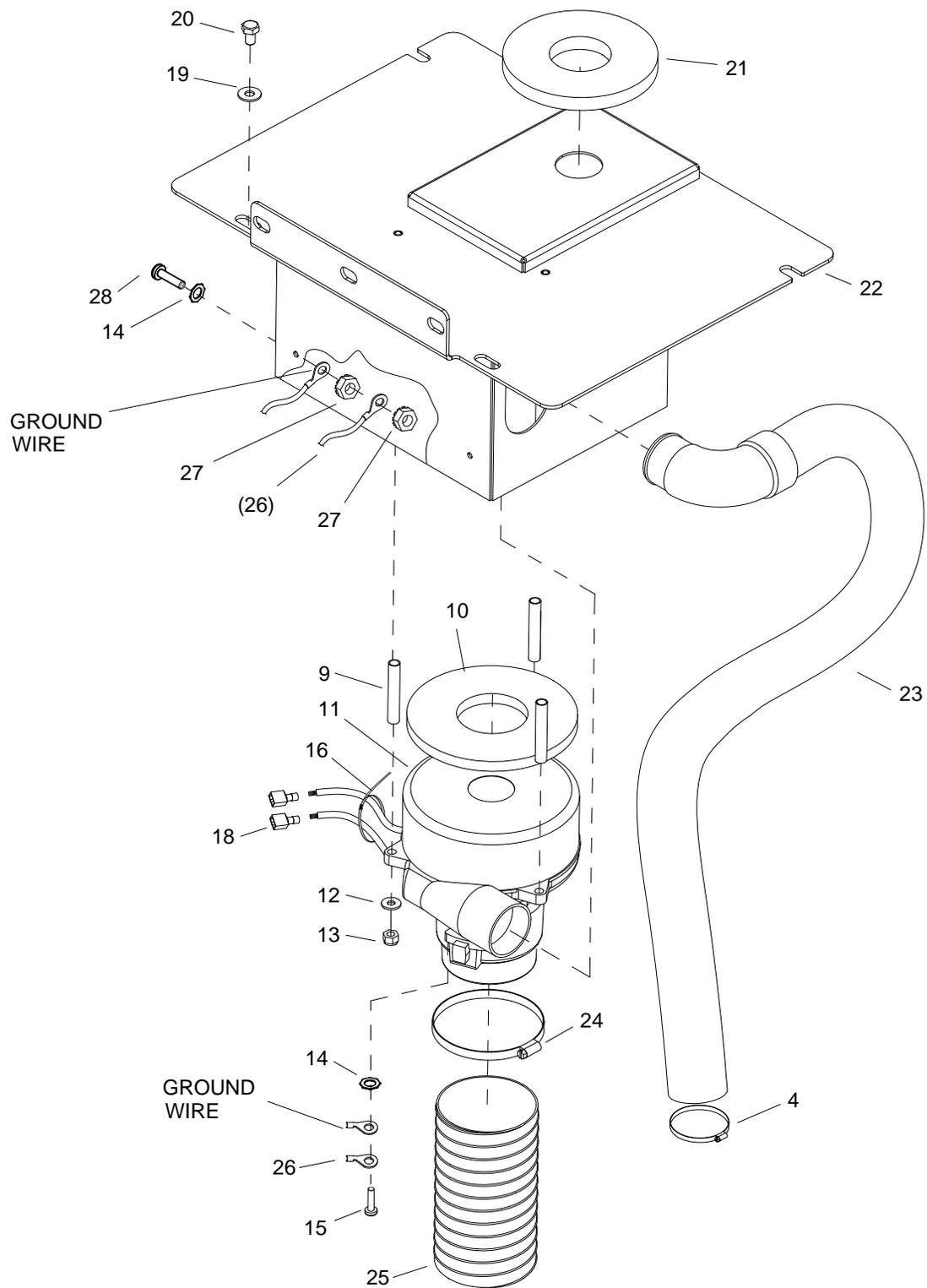
# SOLUTION TANK



## SOLUTION TANK

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86290070	-	1	TANK, SOLUTION CMPS		
2	86239680	41476	1	HOOK, HOSE STORAGE		
3	86276600	70696	10	SCR, #10 X 3/4 PTHSMS SS		
4	86243960	500777	1	LABEL, COMPASS LEFT		
5	86275800	70546	6	SCR, 8 X 3/4 PFHT/S BLK ZINC		
6	86226970	49-876215	1	ACCESS COVER, CLEAR 3.5" W/ RIM		
7	86197910	40022	1	HOSEBARB, 1/2 MPT X 1/2 POLY DL		
8	86233150	20042	1	CLAMP, 3/8 HOSE (D-SLOT)		
9	86282260	39630	1	HOSE, 1/2 CLEAR X 34"		
10	86240400	40077	1	HOSEBARB, 3/4MPT X 1/2 HOSE		
11	86243970	500778	1	LABEL, COMPASS RIGHT		
12	86277040	70781	2	SCR, 5/16-18 X 1/2 HHCS SS NP		
13	86070490	140657	2	BRKT, HOOK TAB		
14	86260810	39633	1	HOSE ASM, SOLUTION FILL HOSE		
15	86234510	270018	1	CORD, 1/4 DIA BUNGEE		
16	86256080	730232	3	STRAP, 1.5" X 7.00" VELCRO		
17	86256070	730231	2	STRAP, 1.5" X 4.50" VELCRO		
18	86006590	70088	2	SCR, 10-32 X 1/2 PPHMS SS NP		

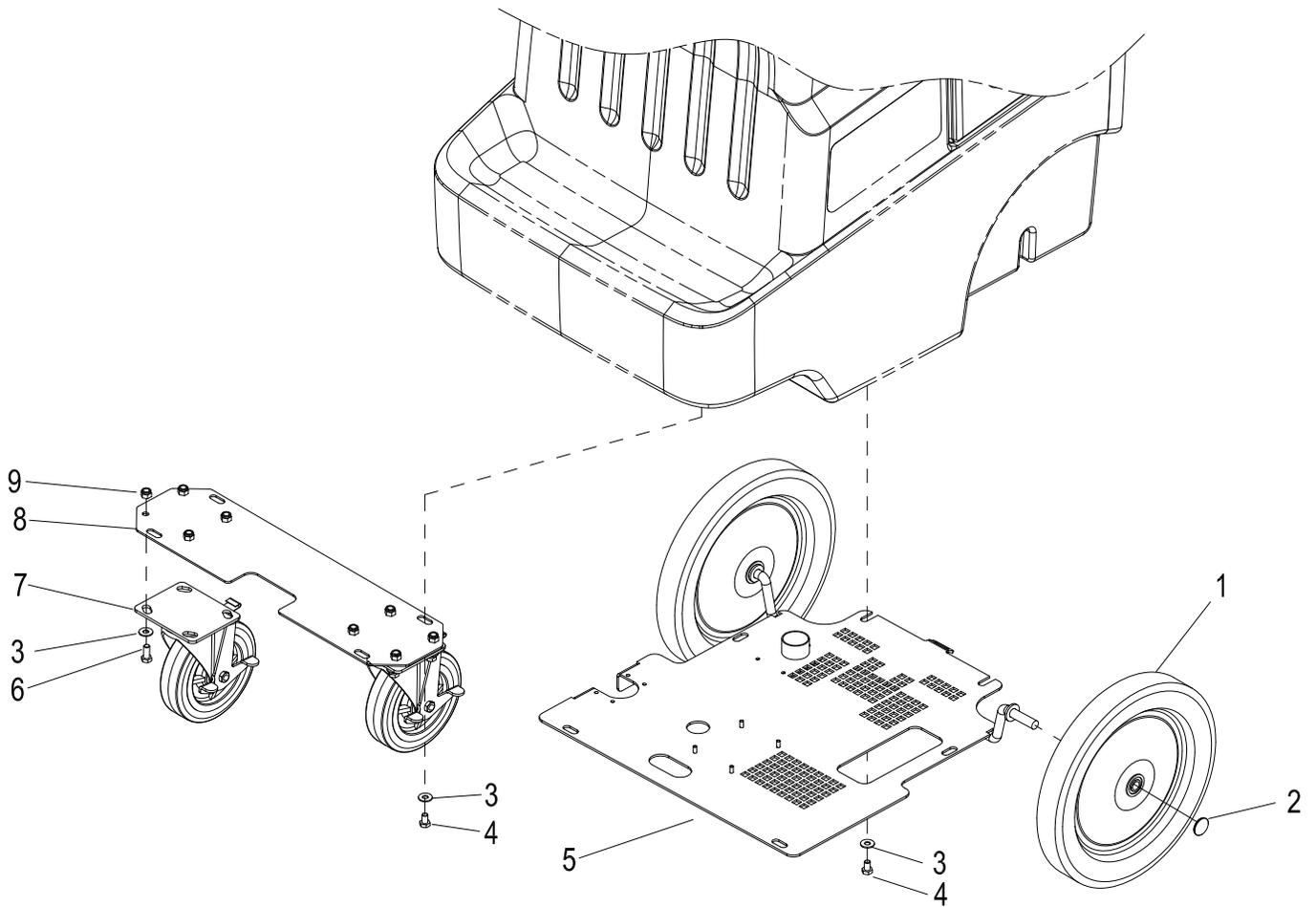
# VACUUM



**VACUUM**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86237850	35268	2	GASKET, 5.0 OD X 1.75 ID X .38T		
2	86092220	270010	1	COVER, VAC MOTOR		
3	86238020	36234	1	GASKET, 5.0 OD X 3.1 ID X .75		
4	86002390	20063	1	CLAMP, 1.75" WORM GEAR X .312		
5	86282120	39582	1	HOSE, VAC EXHAUST X 9"		
6	86093590	620004	1	PLATE, VAC MOUNT		
7	86004190	39337	1	HOSE, 1.5 BLK VAC X 24"		
8	86276940	70758	3	SCR, 1/4-20 X 3.5 HHCS SS NP		
9	86201970	065-92	3	VAC SPACER, 2-1/4 II STAGE		
10	86003760	35166	1	GASKET, VAC MOTOR		
11	86202040	360-04A	1	VAC MOTOR, 120V 5.7 2 ST TD		
-	86202070	360-04B	-	BRUSHES, VAC FOR 116392-00		
-	86135320	140687	-	BRUSH SET, 120V VAC WINDSOR		
-	86028720	53266	-	VAC MOTOR ASM, 115V W/ TERM		
12	86010630	87013	3	WASHER, 1/4 ID X 5/8 OD SS		
13	86005810	57245	3	NUT, 1/4-20 HEX NYLOCK SS		
14	86010640	87016	2	WASHER, #10 LOCK EXT STAR SS		
15	86274370	70191	1	SCR, 10-24 X 1/2 HHTC TYPE 23		
16	86264930	27050	1	CABLE TIE, 3.5" UL/CSA		
17	86002380	20046	1	CLAMP, 2.25" WORM GEAR		
18	86266130	76044L	2	TERM, 14G MALE COUPLER F/I		
19	86010670	87029	5	WASHER, 5/16 FLAT SS		
20	86277040	70781	5	SCR, 5/16-18 X 1/2 HHCS SS NP		
21	86237870	35270	1	GASKET, 5.0OD X 2.0ID X .50T		
22	86078870	620018	1	PLATE, COVER VAC MOUNT		
23	86004370	39547	1	HOSE ASM, 1.5 BLK VAC X 21		
24	86233260	20092	1	CLAMP, 3.5" WORM GEAR		
25	86240240	39697	1	HOSE, 3.15ID X 7.0L VENT		
26	86269400	88951	1	WIRE, 10" GRN/18 76008 X 76008		
27	86005700	57104	2	NUT, 10-32 W/ STAR WASHER PLTD		
28	86006590	70088	1	SCR, 10-32 X 1/2 PPHMS SS NP		

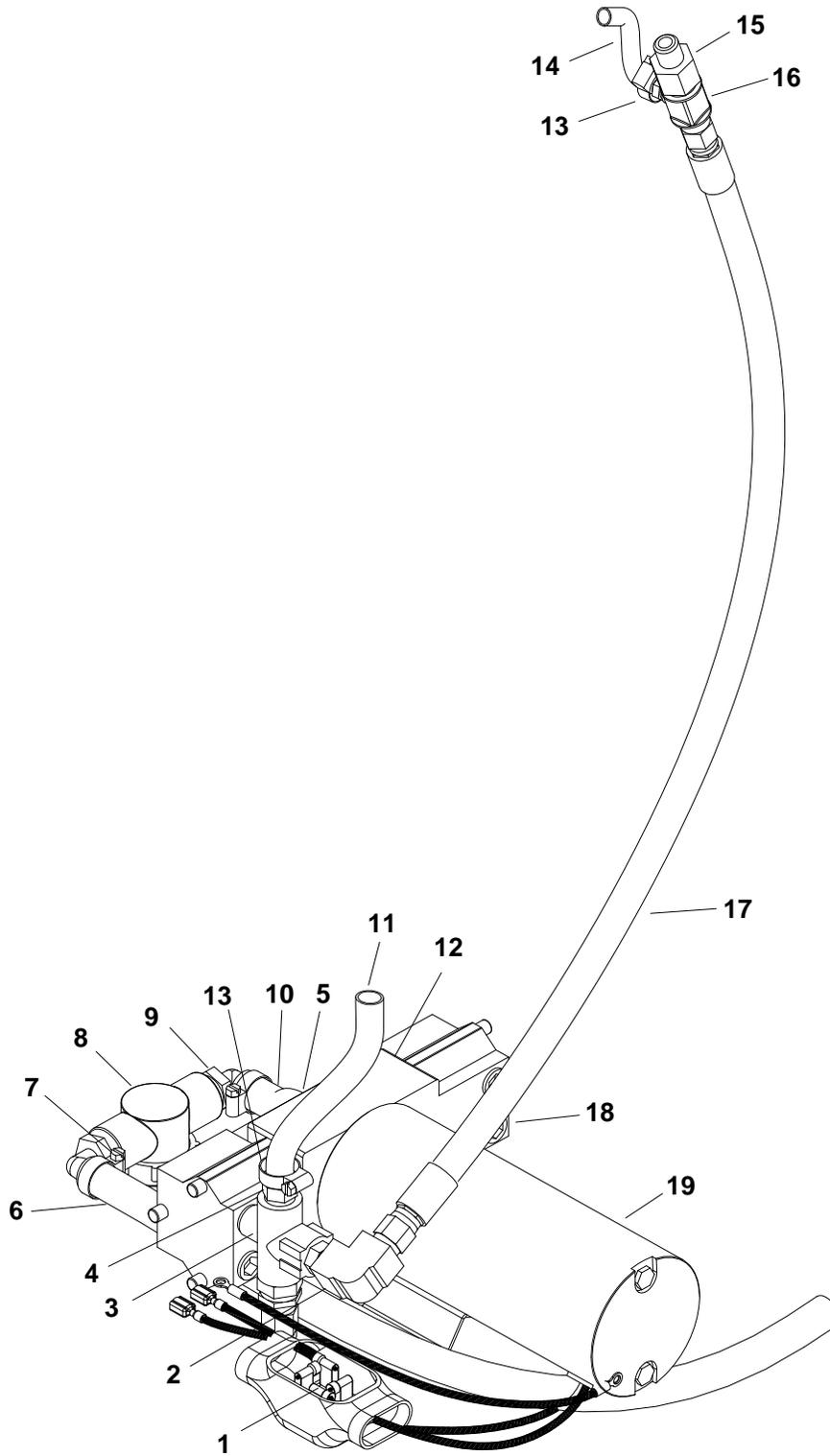
# WHEELS & FRAME



## **WHEELS & FRAME**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86202280	89252	2	WHEEL, 12" BLK CNTRD HUB		
2	86271380	57196	2	NUT, 1/2 PUSH-ON DOME CAP		
3	86010670	87029	18	WASHER, 5/16 FLAT SS		
4	86277040	70781	10	SCR, 5/16-18 X 1/2 HHCS SS NP		
5	86014710	-	1	FRAME, PUMP/WHEEL MNT		
6	86276940	70758	8	SCR, 1/4-20 X 3.5 HHCS SS NP		
7	86232620	18043	2	CASTER, 6" DIA X 4.63 SWIVEL		
8	86078800	620001	1	PLATE, MOUNT CASTER		
9	86270830	57023	8	NUT, 5/16-18 HEX NYLOCK SS		

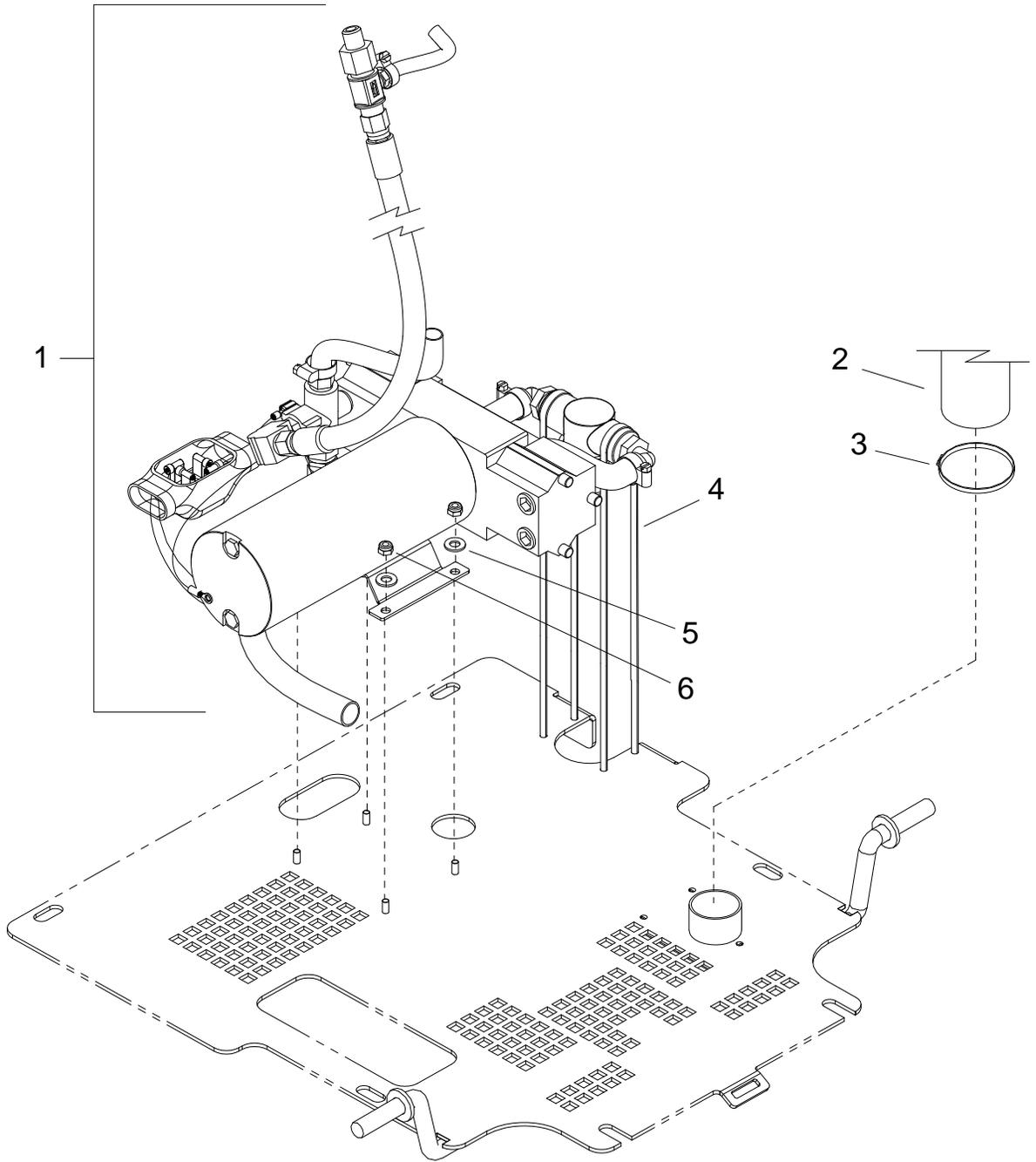
# PUMP



**PUMP**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86223390	67488	1	RECTIFIER, 50A 600V BRIDGE		
2	86180220	11-800276	1	ELL, 3/8 BR		
3	86290290	-	1	UNLOADER, PMPTC EVK-520-450		
4	86197510	40010	1	HOSEBARB, 3/8MPT X 3/8 BR DL		
5	86197540	40013	1	HOSEBARB, 3/8MPT X 1/2 DL		NOT SHOWN
6	86282270	39631	1	HOSE, 1/2ID WIRE BOUND X 25"		
7	86233150	20042	4	CLAMP, 3/8 HOSE (D-SLOT)		
8	86256090	730262	1	STRAINER, 1/2 FPT 80 MESH		
9	86001530	40039	2	HOSEBARB, 1/2MPT X 1/2 HOSE 90		
10	86281980	39549	1	HOSE, 1/2ID WIRE BOUND X 5"		
11	86281390	39356	1	HOSE, 3/8ID WIRE BOUND X 12"		
12	86290280	-	1	PUMP, PUMPTEC, 500PSI		
13	86233090	20016	2	CLAMP, 1/4 ID HOSE		
14	86281060	39265	1	HOSE, 1/4ID NYLOBRD X 8"		
15	86177610	11-800090	1	CONN, 3/8FP X 1/4P BR		
16	86290310	-	1	INJECTOR, TEE 3/8M X 3/8M 1/4 BR		
17	86290300	-	1	HOSE, PULSE 48" 3/8MPT X 3/8FPT		
18	86190520	11-800224	4	PLUG, 3/8 SOCHD BR		
19	86290270	-	1	MOTOR, 120V CIM-PUMPTEC		

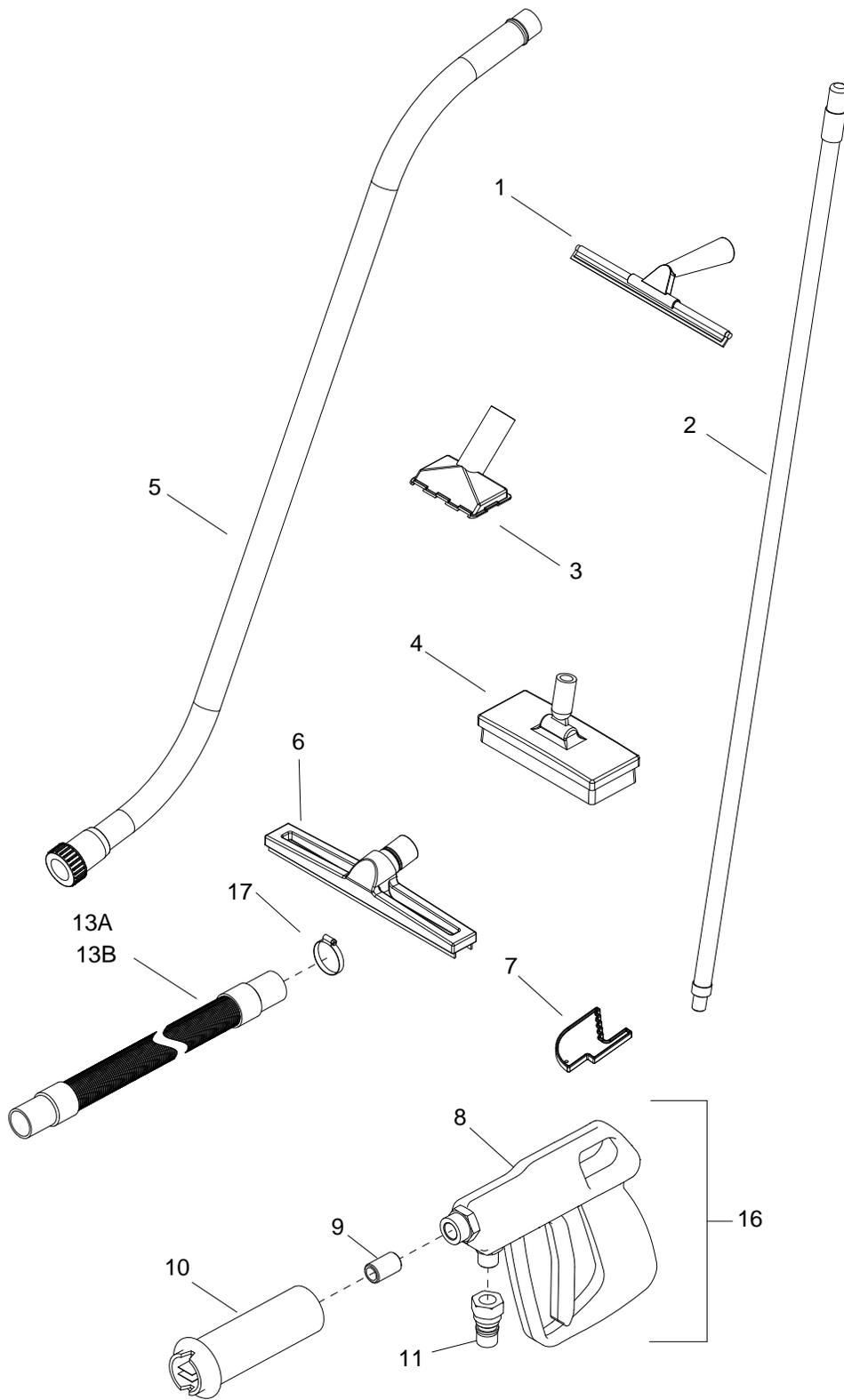
# PUMP



**PUMP**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86014510	-	1	PUMP ASM, 500 PSI 120V CMPS		COMPLETE ASSEMBLY
2	86004370	39547	1	HOSE ASM, 1.5 BLK VAC X 21		
3	86002390	20063	1	CLAMP, 1.75 WORM GEAR X .312		
4	86264940	27051	2	CABLE TIE, 11.38 UL/CSA		
5	86010650	87018	4	WASHER, #10 X 9/16 OD		
6	86270990	57090	4	NUT, 10-32 HEX NYLOCK SS		

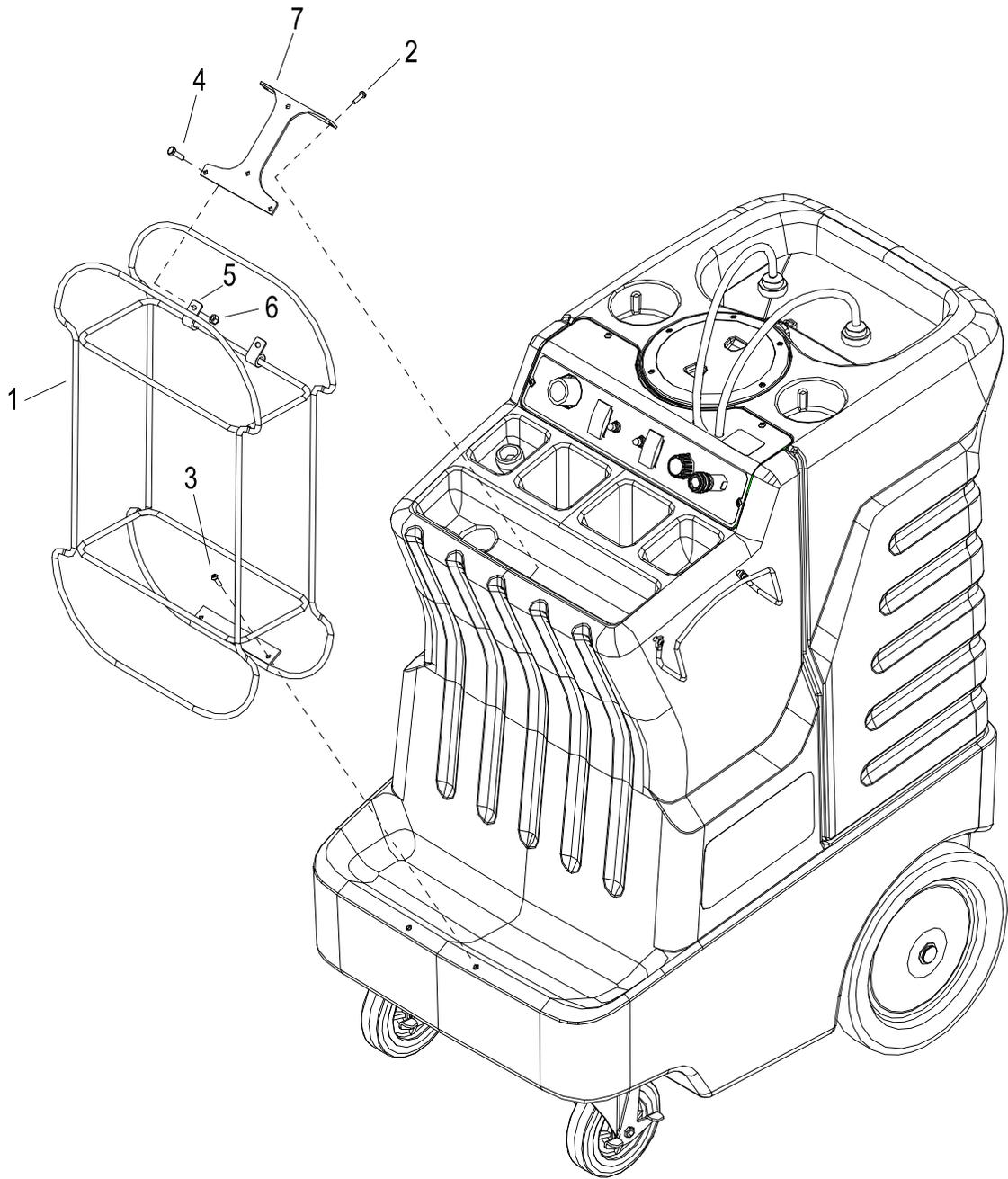
# TOOLS - STANDARD



## TOOLS - STANDARD

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86257660	02478	1	TOOL, HAND SQUEEGEE		
2	86257650	02477	1	TOOL, SCRUB BRUSH HANDLE		
3	86257640	02475	1	TOOL, GULPER		
4	86257670	02479	1	TOOL, TILE BRUSH		
5	86257680	02480	1	TOOL, ALUMINUM WAND		
6	86257620	02473	1	TOOL, WHEELED SQUEEGEE		
7	86257690	02481	1	TOOL, DOOR WEDGE		
8	86290390	-	1	GUN, PRESSURE WASH		
9	86005590	56014	1	NIPPLE, 1/4 CLOSE		
10	86290400	-	1	NOZZLE, ADJUSTABLE HI-LO		
11	86005580	56012	1	NIPPLE, 1/4 FPT QD		
12	86200350	39578	1	HOSE ASM, 1/4HP SLTN 25 FT		NOT SHOWN
13A	86240180	39637	1	HOSE ASM, 1.5 X 30 FT		
13B	86240250	39703	1	HOSE ASM, 1.5 BLK VAC X 30'		CMPSR ONLY
14	86202160	320-05	1	STRAP, VELCRO		NOT SHOWN
15	86234200	23215	1	CORD SET, 14/3 X 50 FT GFCI YLW		NOT SHOWN
16	86290380	-	-	TOOL, SPRAY GUN ASM		SERVICE ONLY
17	86002400	20064	1	CLAMP, 2.9" WORM GEAR X .312W		
18	86241930	47419	-	KIT, SQUEEGEE TOOL BLADES		SERVICE ONLY
19	86290410	-	-	NOZZLE REPLACEMENT JET		SERVICE ONLY
20	86269560	96V123R	1	COMPASS TRAINING VIDEO		NOT SHOWN

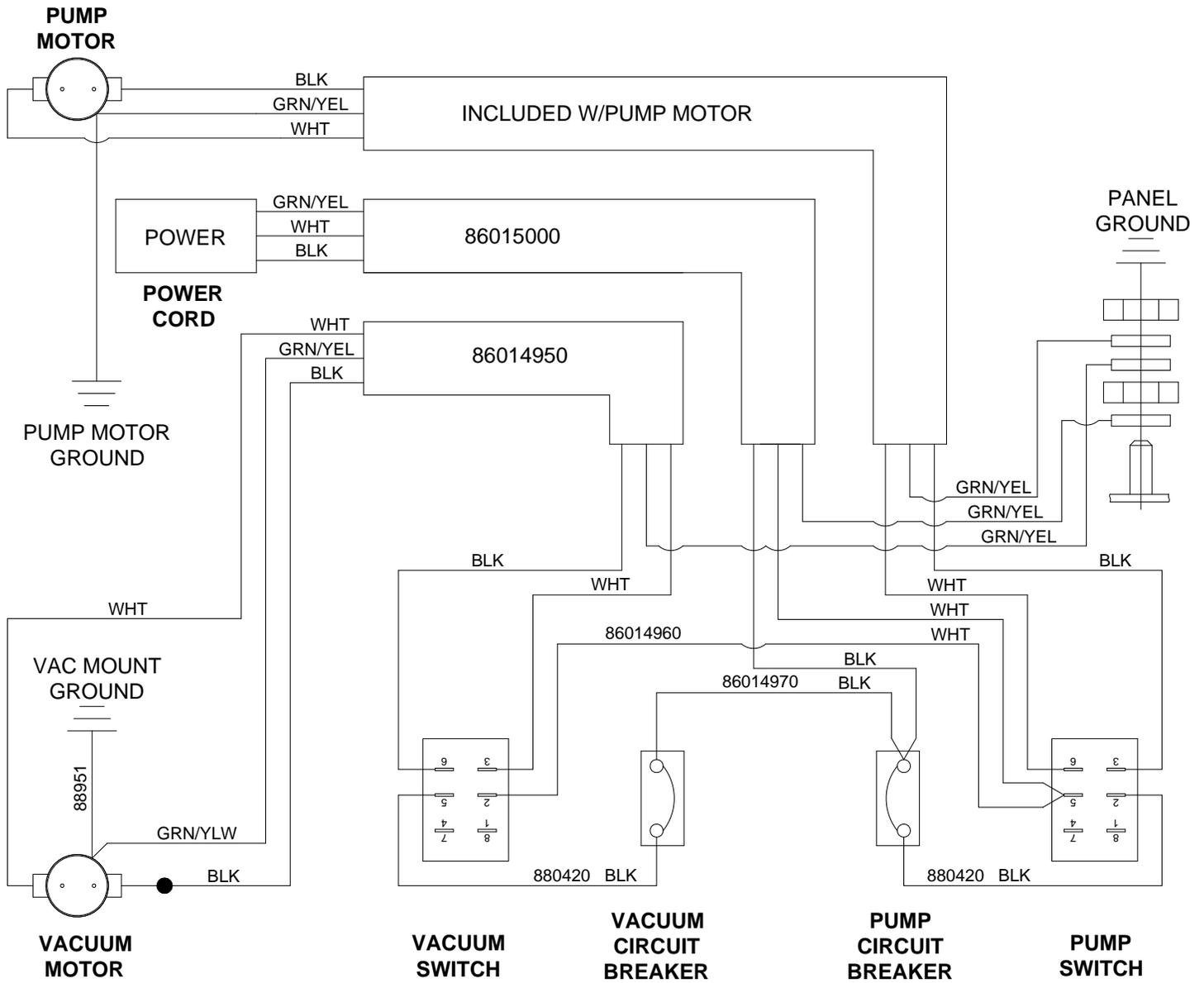
# VAC HOSE RACK – CMPSR ONLY



## VAC HOSE RACK - CMPSR

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86240630	49499	1	HOSE RACK		
2	86276600	70696	3	SCR, #10 X 3/4 PTHSMS SS		
3	86006590	70088	2	SCR, 10-32 X 1/2 PPHMS SS NP		
4	86275210	70384	2	SCR, 1/4-20 X 1/2 PHTR BLK DL		
5	86270250	03-000133	2	CLAMP, 1/4X1/4 BLT VIN DP		
6	86005680	57047	2	NUT, 1/4-20 HEX NYLOCK		
7	86068180	140710	1	BRACKET, TOP HOSE RACK		

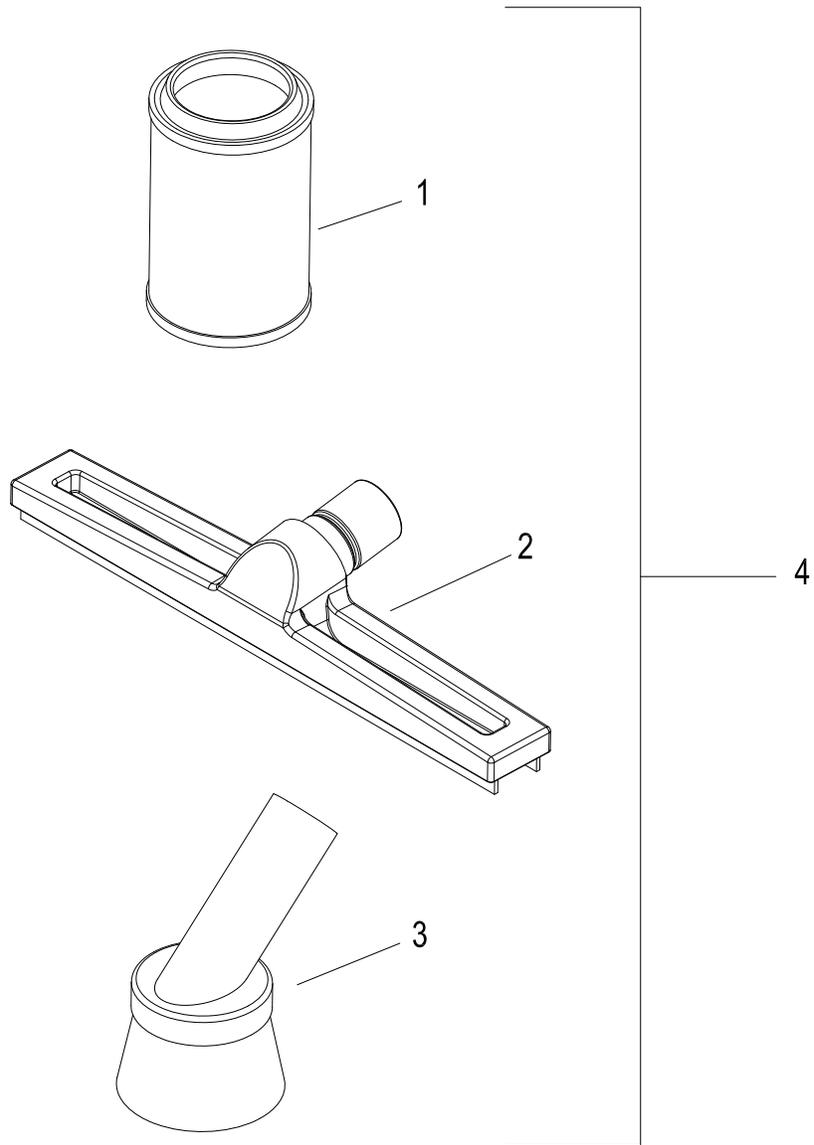
# WIRING – SCHEMATIC



## SUGGESTED SPARE PARTS

PART NO.	PRV NO.	DESCRIPTION	SERIAL NO.	NOTES:
86241930	47419	KIT, SQUEEGEE TOOL BLADES		
86256090	730262	STRAINER, 1/2 FPT 80 MESH		
86202070	360-04B	BRUSHES, VAC FOR 116392-00		
86135320	140687	BRUSH SET, 120V VAC WINDSOR		
86028720	53266	VAC MOTOR ASM, 115V W/ TERM		
86002010	14942	BOOT, 3/8 CIRCUIT BREAKER		
86230210	14832	BREAKER, 6A VDE CIRCUIT		
86001940	14635	BREAKER, 10A CIRCUIT		
86241930	47419	KIT, SQUEEGEE TOOL BLADES		
86290270	-	MOTOR, 120V CIM-PUMPTEC		
86290280	-	PUMP, PUMPTEC, 500PSI		
86290390	-	GUN, PRESSURE WASH PMPTC		
86290400	-	NOZZLE, ADJUSTABLE HI-LO PMPTC		
86290410	-	NOZZLE, REPLACEMENT JET PMPTC		

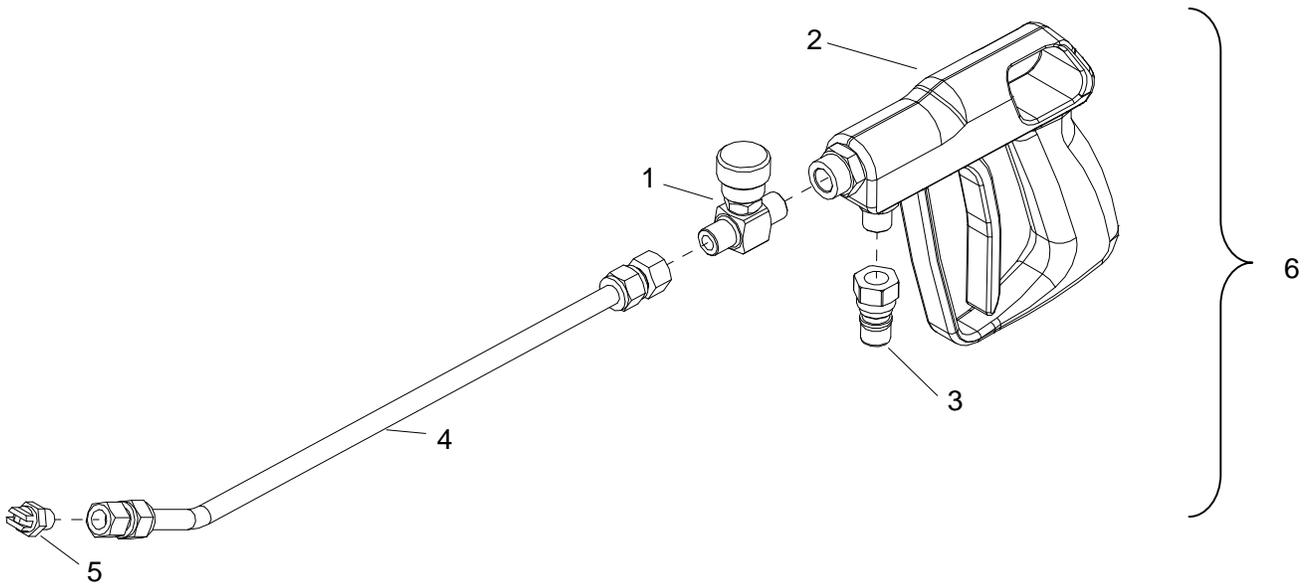
**TOOLS- DRY CLEAN OPTION**



## **TOOLS – DRY CLEAN OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86236130	34410	1	FILTER, WET/DRY		
2	86257630	02474	1	TOOL, WHEELED BRUSH		
3	86257700	02485	1	TOOL, DUST BRUSH		
4	86286550	47422	REF	KIT, DRY CLEAN		

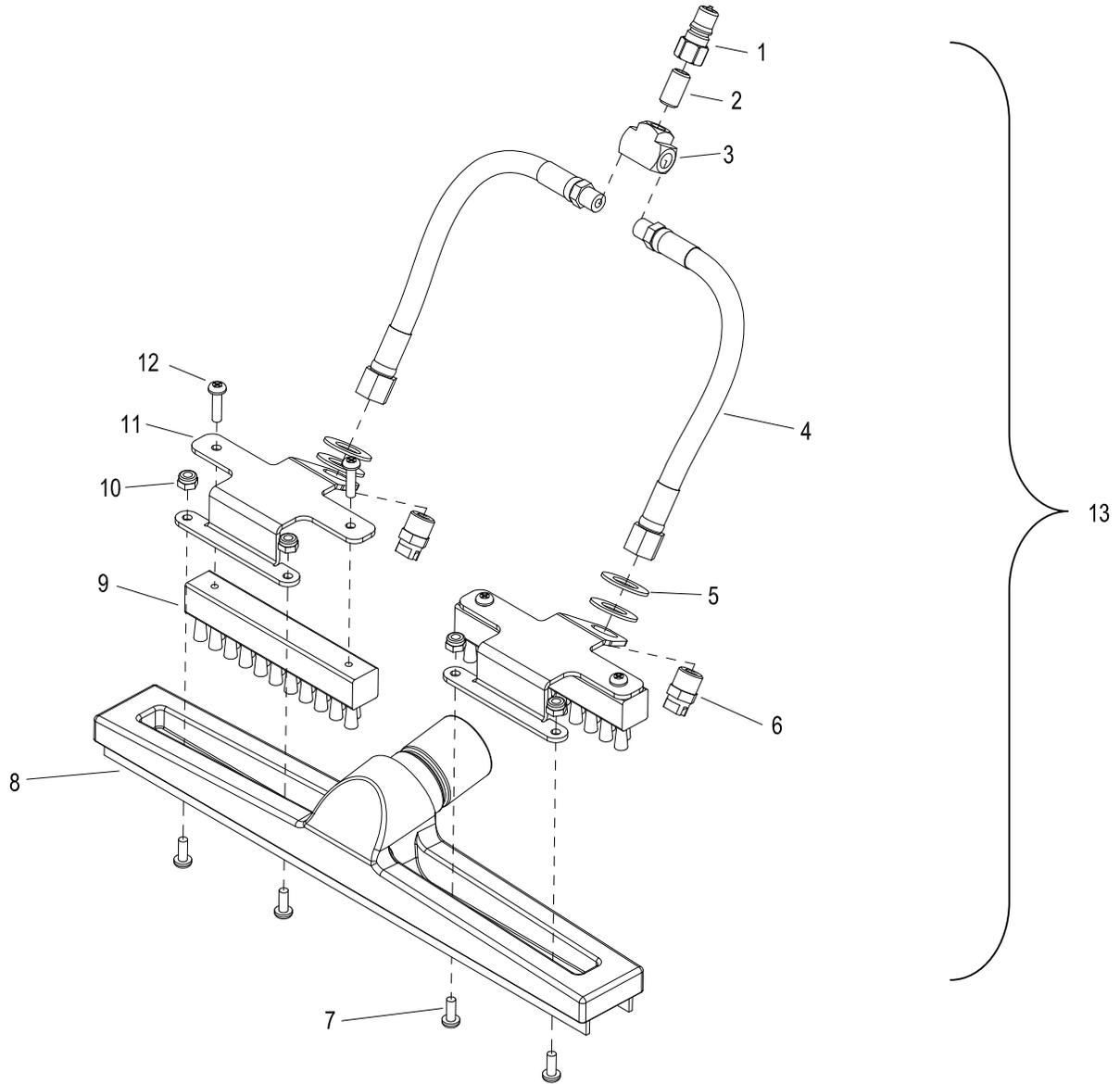
**TOOLS- LOW FLOW SPRAY GUN OPTION**



## **TOOLS – LOW FLOW SPRAY GUN OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86258920	84186	1	VALVE, FLOW ADJUSTMENT		
2	86290390		1	GUN, PRESSURE WASH		
3	86005580	56012	1	NIPPLE, 1/4 FPT QD		
4	86246040	51389	1	LANCE, SPRAY GUN		
5	86241690	44078	1	JET, 1/ H-VV 8003		
6	86041290	47427	REF	KIT, LOW FLOW SPRAY GUN		

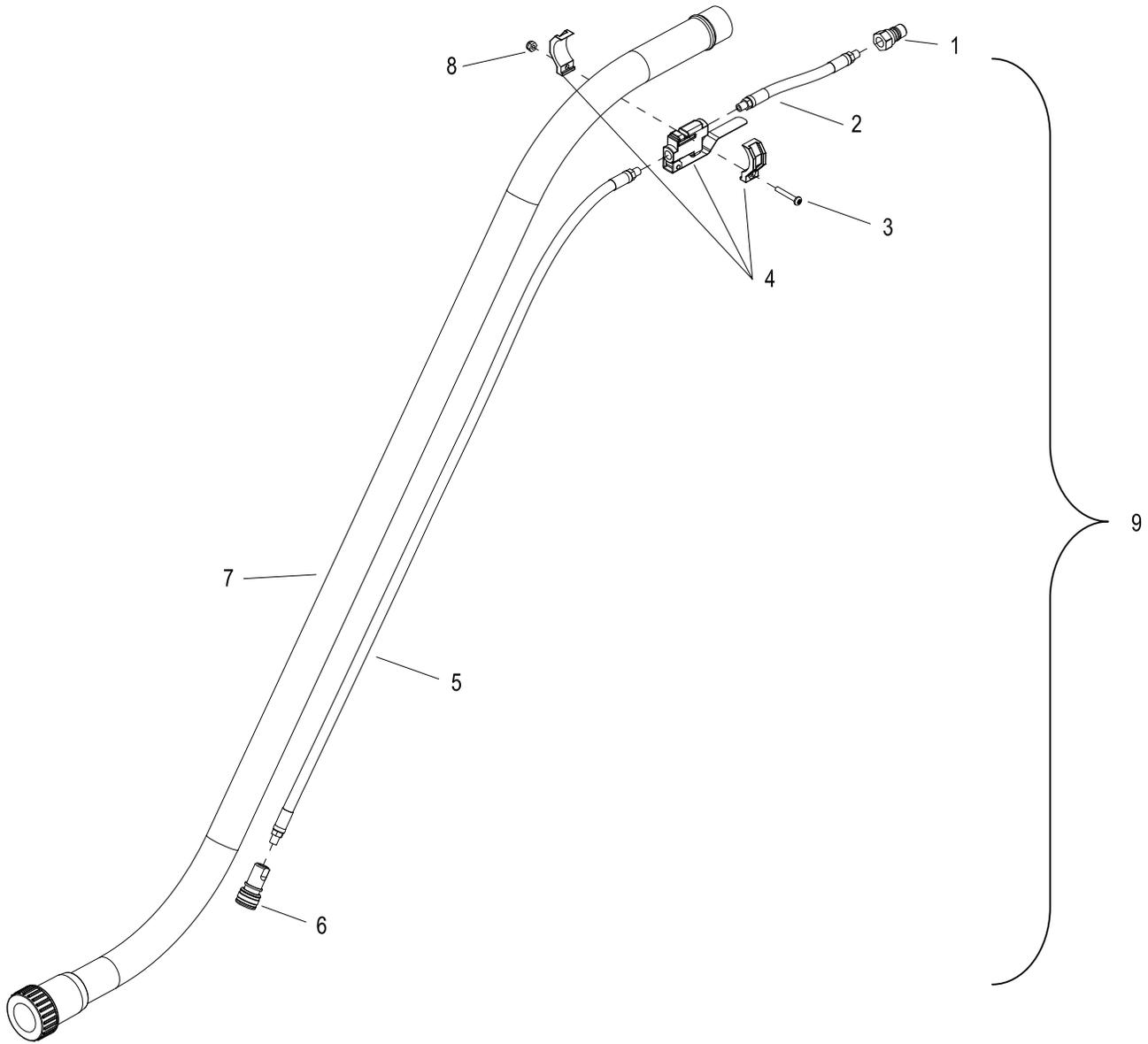
# TOOLS- GROUT CLEANER OPTION



## TOOLS – GROUT CLEANER OPTION

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86200820	270-11A	1	NIPPLE, 1/8 FPT QD MALE BRASS		
2	86247720	56032	1	NIPPLE, 1/8 CLOSE		
3	86194160	11-800133	1	TEE, 1/8 BR		
4	86240190	39639	2	HOSE, 1/8 MPT X 1/4 FPT X 12L		
5	86090230	87015	4	WASHER, 9/16 ID X 1.06 OD SS		
6	86241700	44079	2	JET, 1/4 MEG 15015		
7	86006590	70088	4	SCR, 10-32 X 1/2 PPHMS SS NP		
8	86088740	02476	1	TOOL, GROUT CLEANER		
9	86230820	140653	2	BRUSH, FLOOR TOOL		
10	86270990	57090	4	NUT, 10-32 HEX NYLOCK SS		
11	86070460	140652	2	BRKT, BRUSH MOUNT		
12	86276290	70626	4	SCR, #10 X 3/4 PPHST HI-LO BLK		
13	86000480	47431	REF	KIT, GROUT CLEANER		

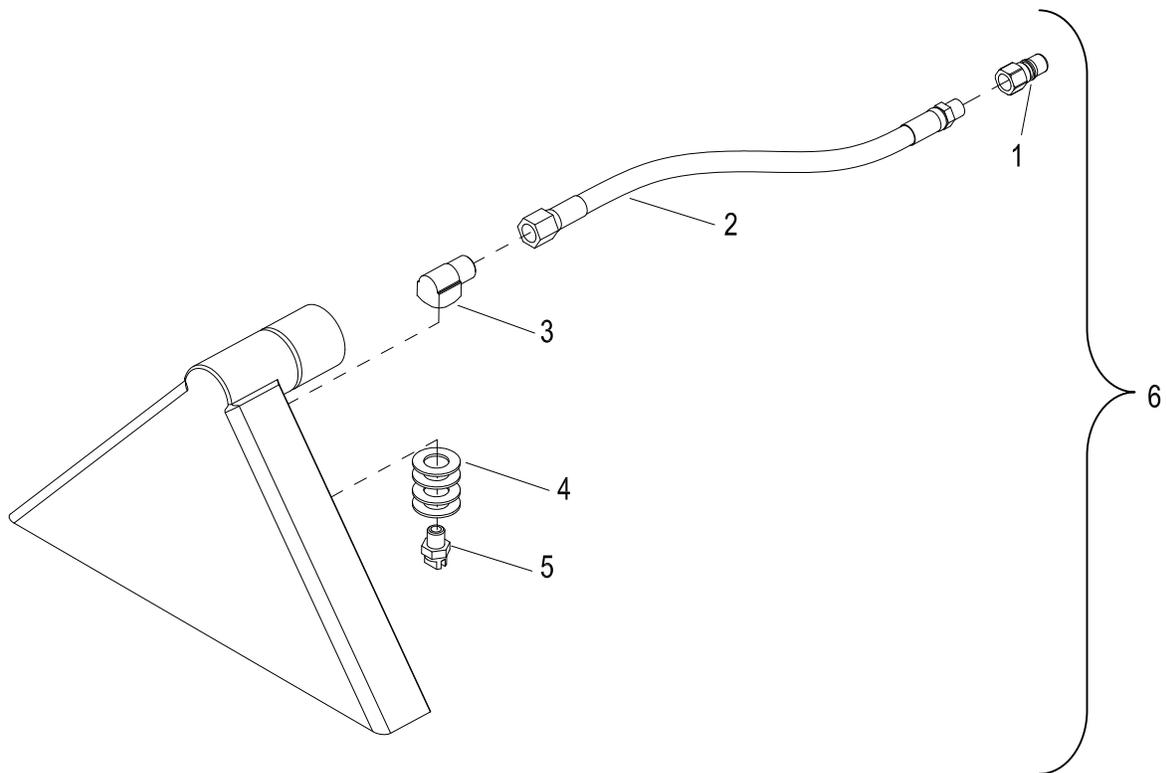
# TOOLS- HIGH PRESSURE WAND OPTION



## **TOOLS – HIGH PRESSURE WAND OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86005580	56012	1	NIPPLE, 1/4 FPT QD		
2	86240210	39641	1	HOSE, 1/8 MPT X 1/4 MPT X 7 L		
3	86274410	70195	1	SCR, 10-32 X 1.25 PPHMS SS		
4	86258950	84189	1	VALVE, 500 PSI W/ CLAMP		
5	86240200	39640	1	HOSE, 1/8 MPT X 1/8 MPT X 38L		
6	86200810	270-11	1	NIPPLE, 1/8 FPT QD FEM BRASS		
7	86257680	02480	1	TOOL, ALUMINUM WAND		
8	86270990	57090	1	NUT, 10-32 HEX NYLOCK SS		
9	86041300	47432	REF	KIT, HIGH PRESSURE WAND		

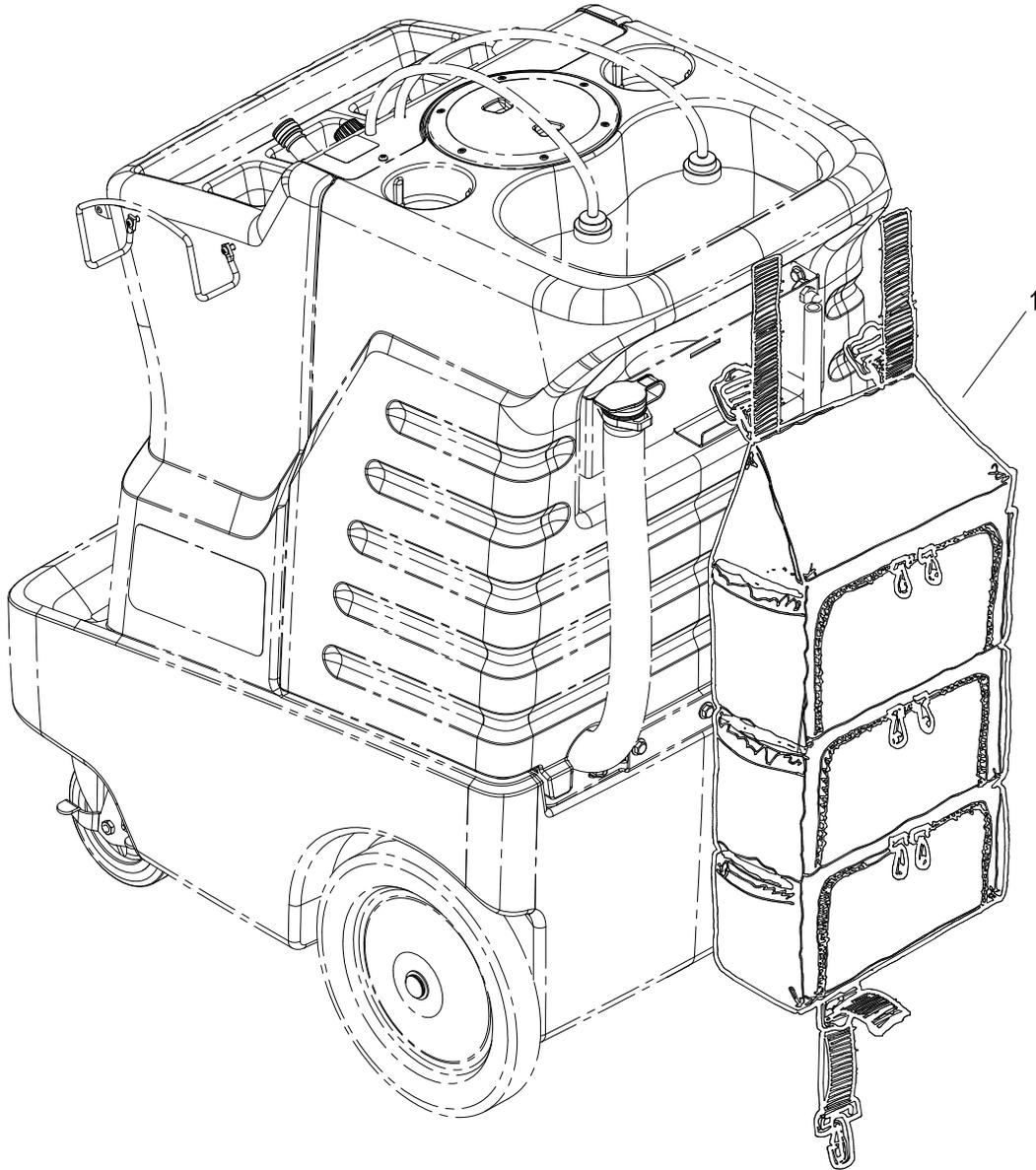
# TOOLS- CARPET TOOL OPTION



## **TOOLS – CARPET TOOL OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86200820	270-11A	1	NIPPLE, 1/8 FPT QD MALE BRASS		
2	86240220	39642	1	HOSE, 1/8 MPT X 1/4 FPT X 12L		
3	86197360	31016	1	ELBOW, 1/4 NPT STREET		
4	86090230	87015	4	WASHER, 9/16 ID X 1.06 OD SS		
5	86241710	44080	1	JET, 1/4 H-VV 11003		
6	86284550	02484	-	TOOL, CARPET CLEANER		SERVICE ONLY

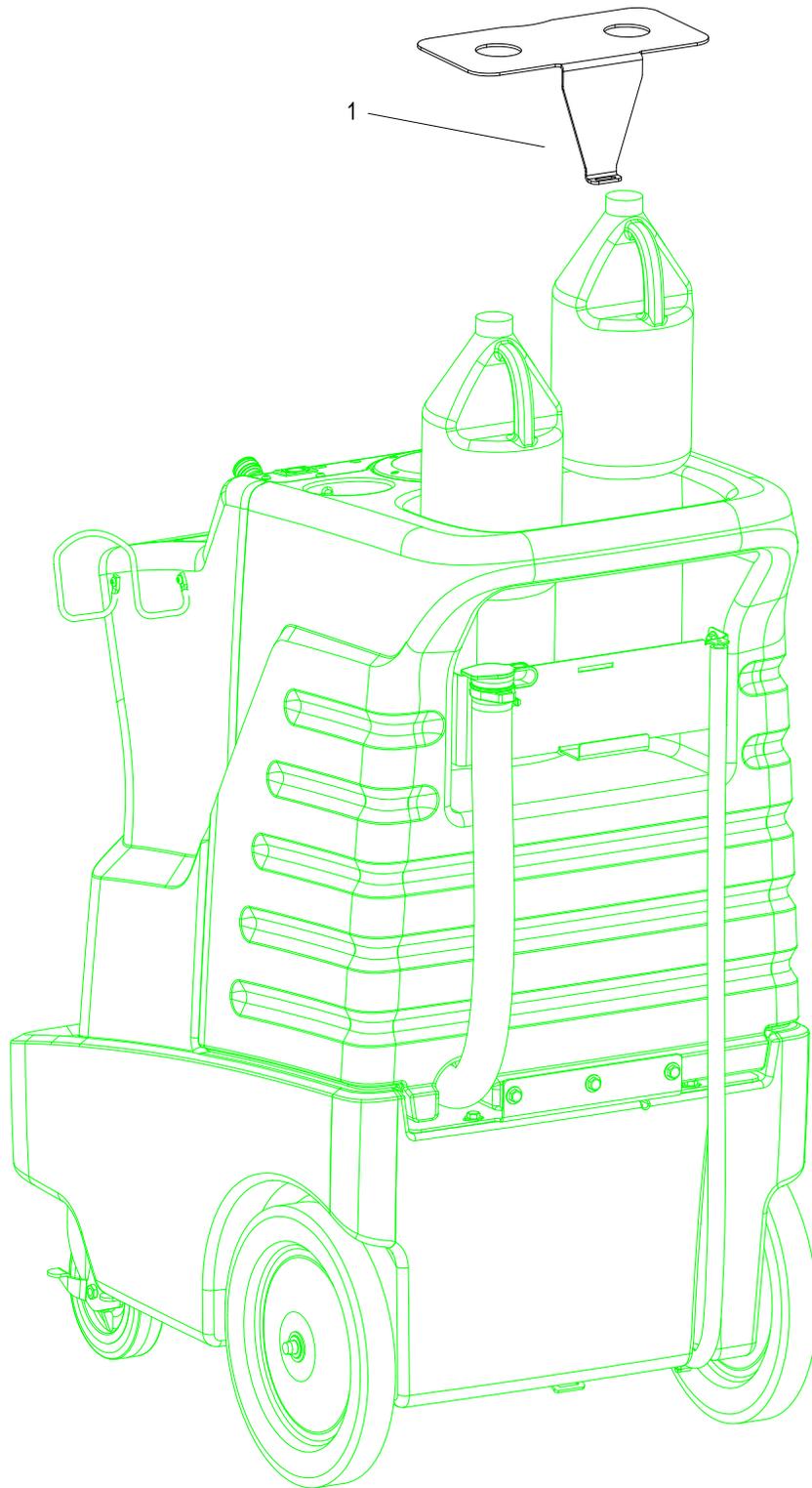
# STORAGE BAG-OPTION



**STORAGE BAG-OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86283390	47423	1	KIT, STORAGE BAG		

# CHEMICAL LOCK-OPTION



## **CHEMICAL LOCK-OPTION**

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86070520	140660	1	BRKT, CHEMICAL LOCK		

# NOTES