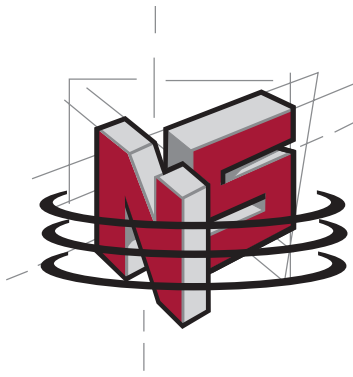




NuSource

MANUFACTURERS FOR THE COMMERCIAL CLEANING INDUSTRY

Operator and Parts Manual



Self Contained Carpet Extractor

NU18SCET

Date Purchased: _____

Purchased From: _____

Serial Number: _____

NuSource • 1001 Brown Avenue • Toledo, Ohio 43607
866.439.0540 • Fax 800.445.5056 • www.nusourcecorp.com

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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 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:

- Periodic
- Daily/Regular

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.

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.

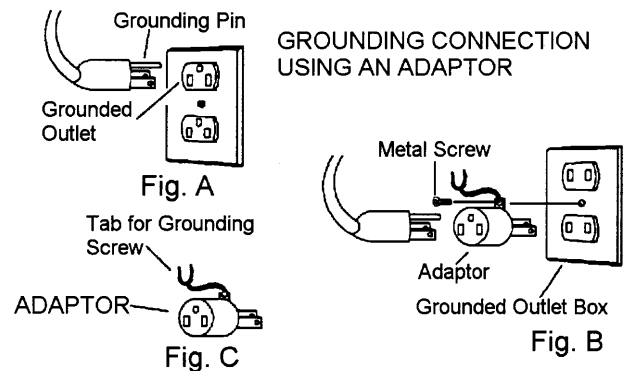
EXTENSION CORDS:

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 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.



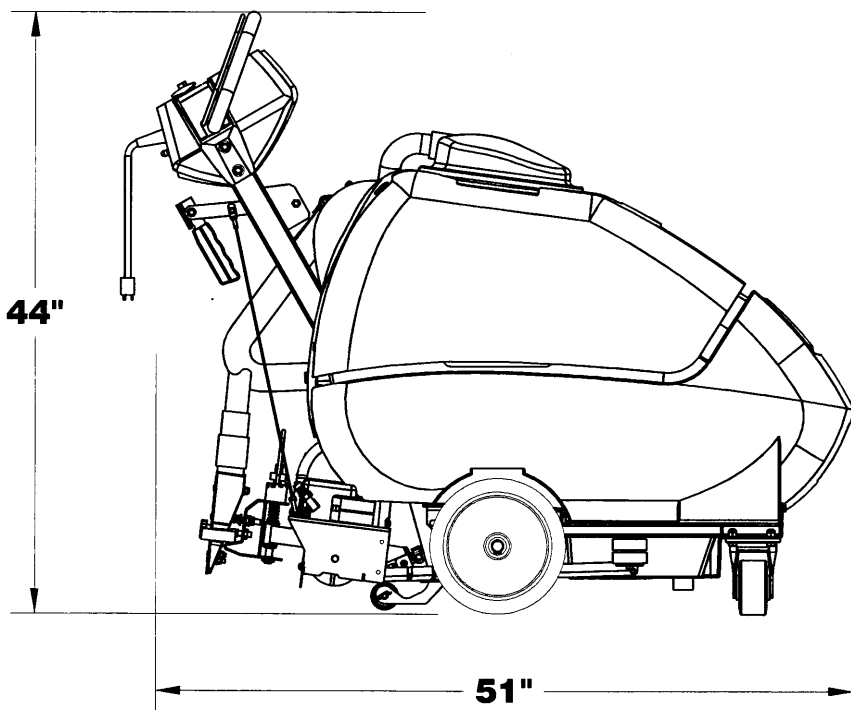
Note: Adaptors are not allowed in Canada.

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.

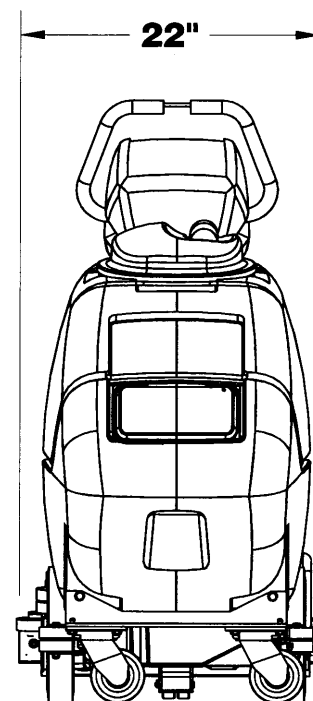
TECHNICAL SPECIFICATIONS

ITEM	DIMENSION/CAPACITY
ELECTRICAL	115V, 15A, 60Hz
ELECTRIC PROPELLING MOTOR	(1) - 1/4HP DC (186 WATTS) WITH VARIABLE SPEED FORWARD
DRIVE SYSTEM	TRANSAXLE UNIT VARIABLE SPEED OPERATING SPEED: 0-100FT/MIN (30M/MIN)
ELECTRIC VACUUM MOTOR	(1) - 3 STAGE, 1HP 99 CFM (2.8M ³ /MIN.)
WATERLIFT	117" (297 CM)
BRUSH	(1) 18" (45.8 CM)
BRUSH SPEED	1000RPM
SOLUTION PUMP	100PSI (6.9 BARS), DIAPHRAGM STYLE, DEMAND PUMP
SOLUTION CAPACITY	20 GALLONS (75 LTR)
SOLUTION SPRAY	2 QUICK CHANGE JETS
RECOVERY CAPACITY	20 GALLONS (75 LTR)
VACUUM SHOE	22" (56 CM)
WHEELS	
FRONT (2)	4" DIA. (10 CM) CASTERS BY 2.5"
REAR (2)	10" DIA. (25 CM) WHEELS BY 2"
WEIGHT	215 LBS. (98 KG)
LENGTH	51" (130 CM)
HEIGHT	44" (111 CM)
WIDTH	22" (56 CM)
POWER CABLE	75' (23 M) 12 GAUGE

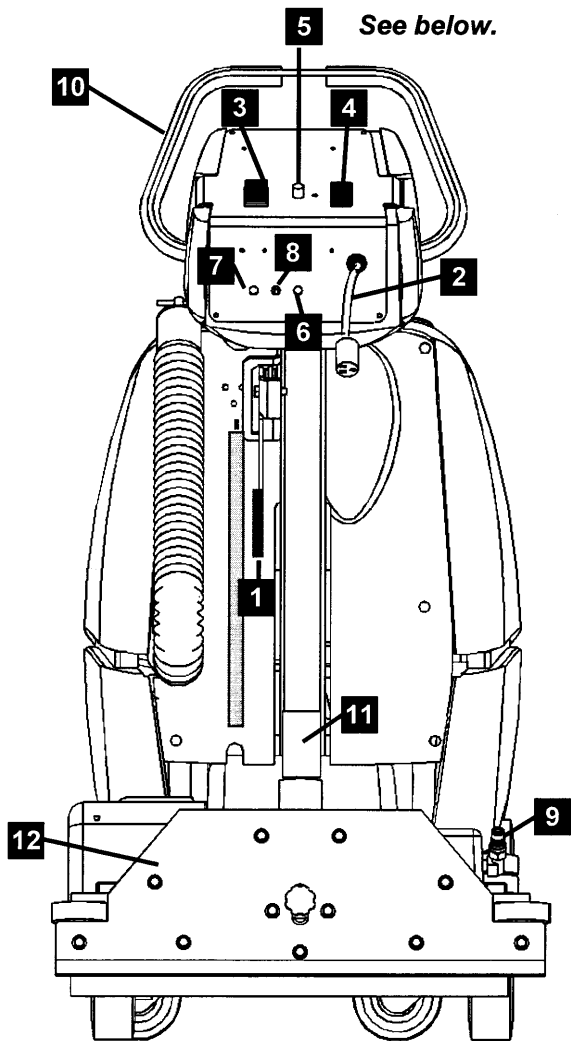
SIDE VIEW



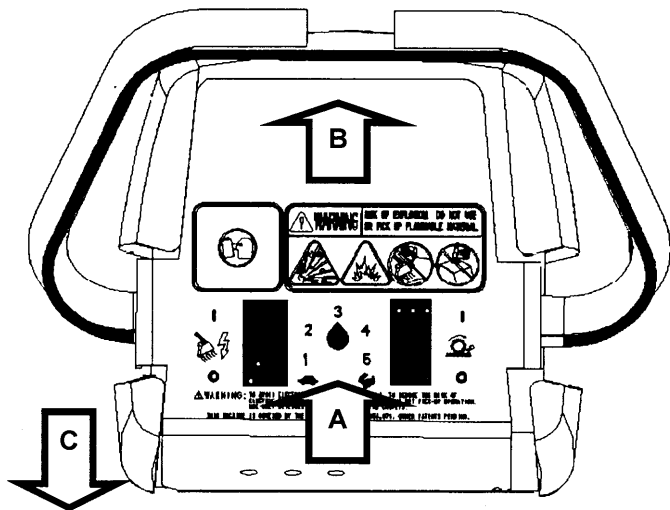
FRONT VIEW



CONTROLS



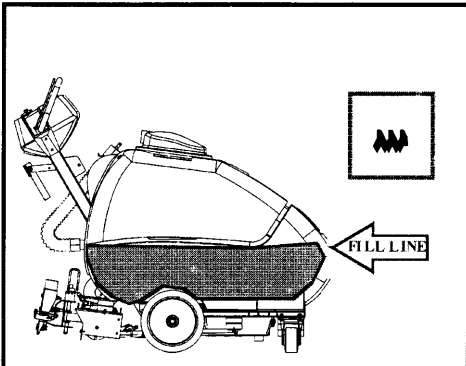
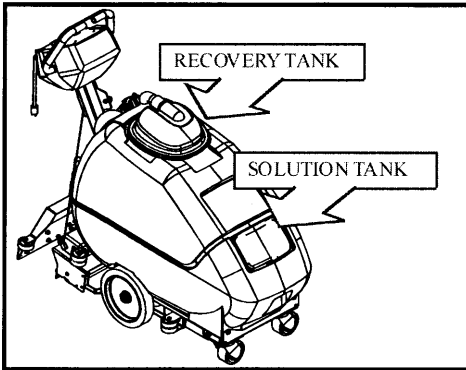
1. **Brush/Vac Shoe Lift Lever.** Raises and lowers both brush and vac shoe.
2. **Electrical Cord.**
3. **Main Power Switch.** Turns ON and OFF the vac motor/pump and machine.
4. **Brush/Solenoid Power Switch.** Enables the brush motor and solution spray (only when propelling).
5. **Speed Control Knob.** Adjusts the forward drive speed of the machine. See below.
6. **Drive Motor Circuit Breaker.** 6 amp, protects the drive motor mechanism.
7. **Vac Motor Circuit Breaker.** 15 amp, protects the vacuum motor.
8. **Brush Motor Circuit Breaker.** 8 amp, protects the brush motor.
9. **Solution Accessory Tool Hookup.** Used for various auxiliary cleaning tools.
10. **Main Handle.**
11. **Vacuum Accessory Tool Hookup.** To use accessory tool, remove hose from vac shoe and attach to accessory tool adaptor.
12. **Vac Shoe Assembly.**



DRIVE CONTROLS

- A. The speed, the machine will travel, is regulated by the knob located on the center of the control panel. Turn the knob to the right to increase the speed of the machine and to the left to decrease the speed of the machine.
- B. Squeezing the control lever will propel the machine forward at the selected speed. Machine will also engage the brush and spray if #4 is activated.
- C. To move the machine backwards, release the control lever and then pull back on main handle. *NOTE: The machine drive assembly is disengaged).* Do not pull back on the control lever.

OPERATIONS



FILLING THE SOLUTION TANK

NOTE: Use clean bucket of water to fill solution tank.

DO NOT PUT DEFOAMER, SOLVENTS, SPOTTER OR PRESpray CHEMICALS IN THE SOLUTION TANK.

CHEMICALS

Suitable Chemicals

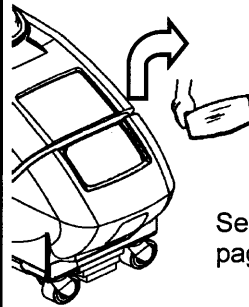
Alkalis
Detergents
Hydroxides
Soaps
Vinegar

Non-Compatible Chemicals

Aldehydes
Aromatic Hydrocarbons
SP Butyls
Carbon Tetrachloride
Clorox*
Chlorinated Bleaches
Chlorinated Hydrocarbons
Lysol*
Methyl Ethel Ketone (MEK)
Perchlorethylene (perc)
Phenolics
Trichlorethylene

STEP 1

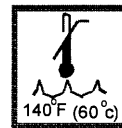
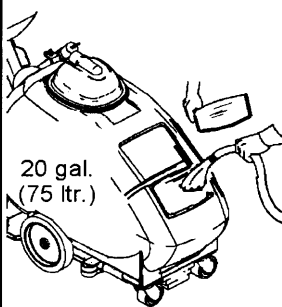
REMOVE DOME



See step 1,
page 3-4.

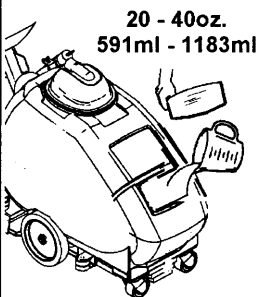
STEP 2

ADD WATER



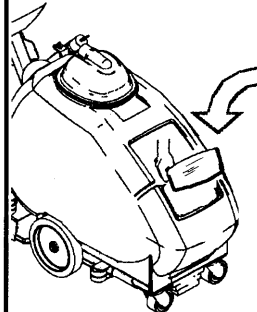
STEP 3

ADD CLEANING CHEMICAL



STEP 4

REPLACE DOME

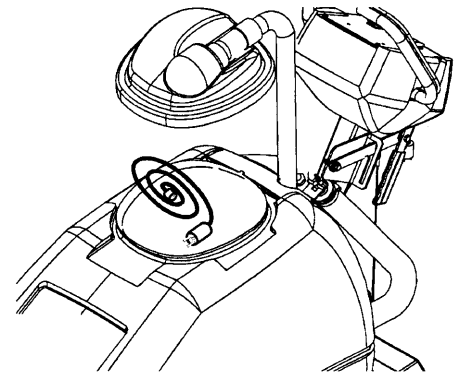


OPERATIONS

Remove electrical cord from recovery tank.

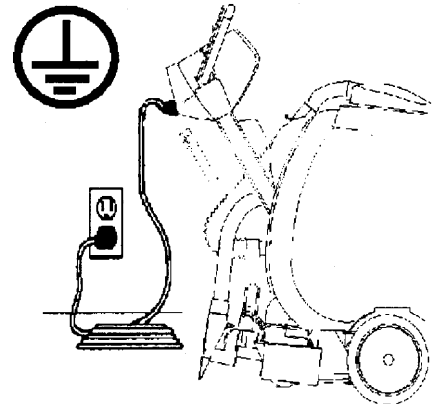
**STEP
1**

REMOVE



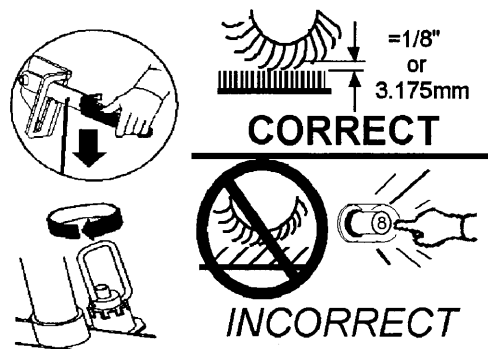
Plug cord into grounded outlet.

**STEP
2**



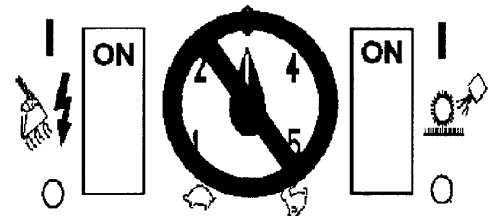
Adjust brush to proper setting (see page 3-8). Lower the brush.

**STEP
3**

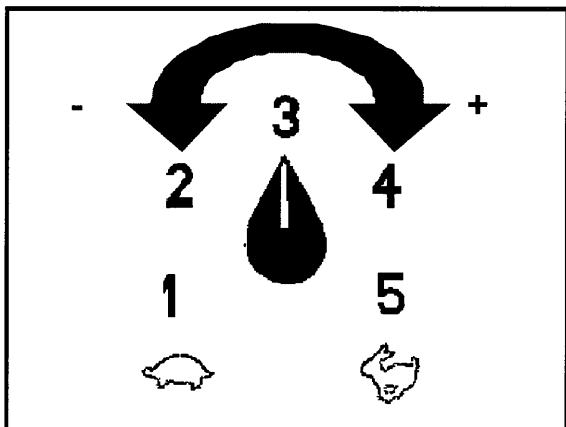


Turn Main Power/Brush Switch "ON"-"I"

**STEP
4**

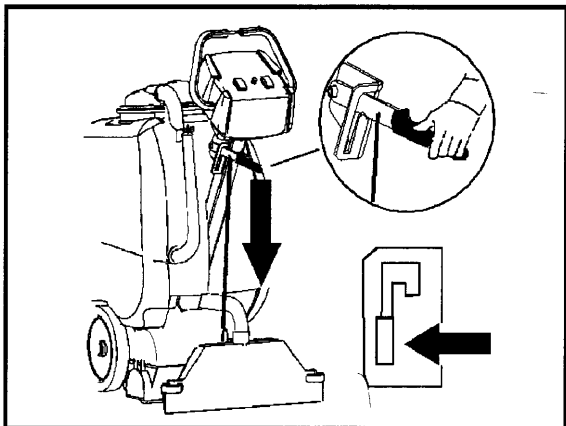


OPERATIONS



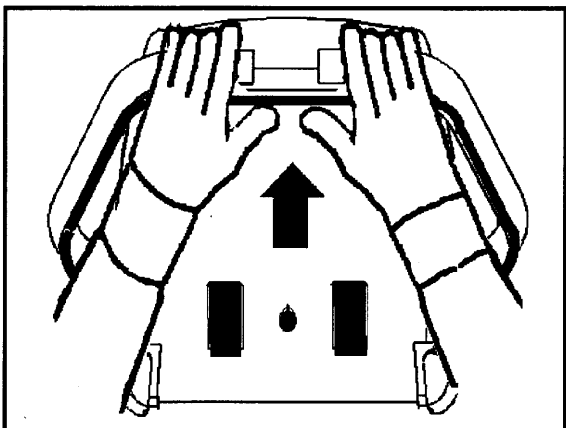
STEP
5

Adjust speed control knob to desired speed.



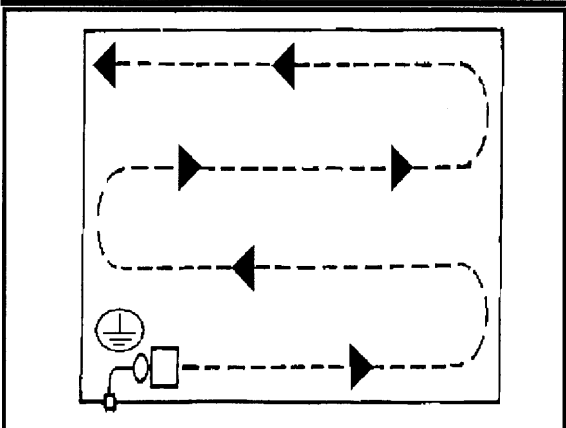
STEP
6

Lower brush assembly to floor.



STEP
7

Depress lever to propel machine forward and to activate brush and spray.



STEP
1

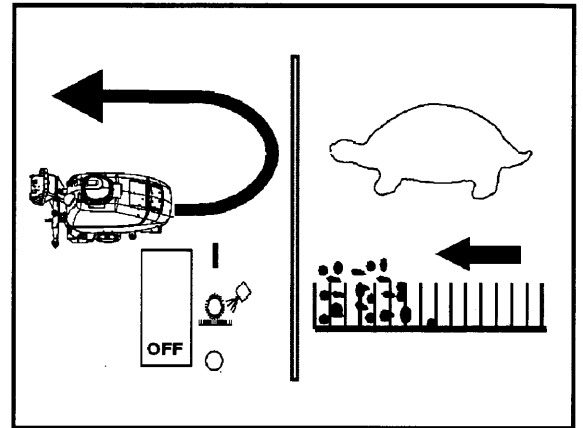
CLEANING PROCEDURE

Operate machine in parallel passes.
Clean perimeter last.

CLEANING PROCEDURE

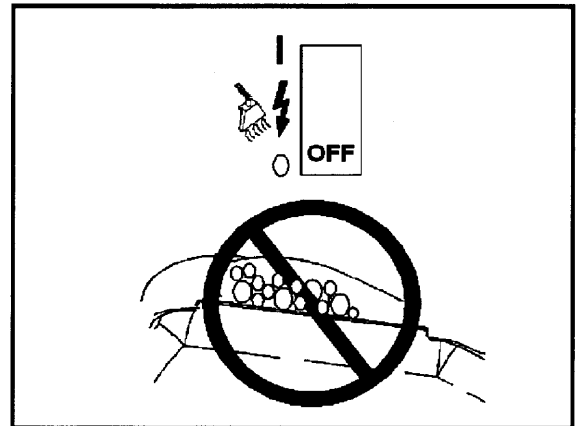
Turn "OFF" brush/solution switch in turns.
Go slow over heavily soiled carpet.

STEP
2



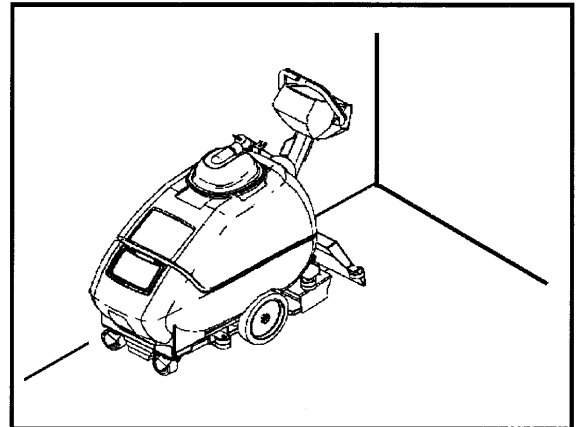
⚠ CAUTION

FOAM!! Turn off machine and
add defoamer to recovery
tank only.



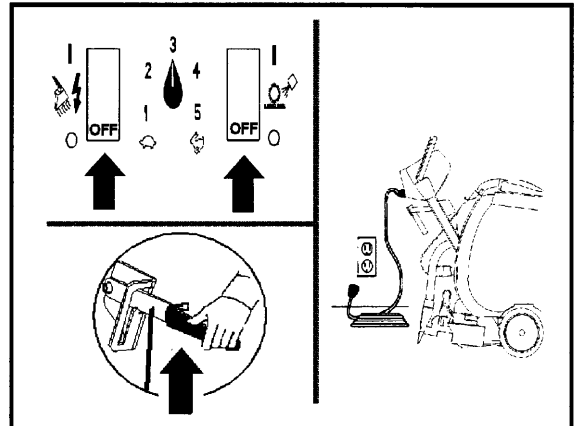
Use right side of machine for cleaning
against walls.

STEP
3

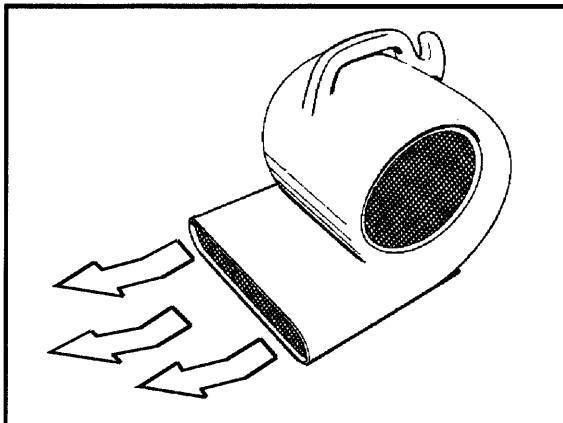


After cleaning, turn off all controls, raise
brush assembly to storage position and
carefully unplug machine.

STEP
4

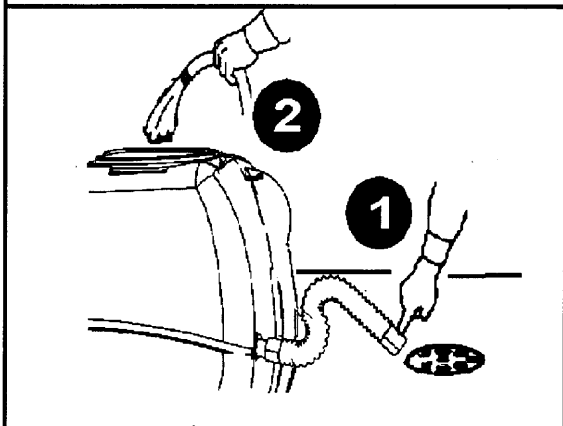


CLEANING PROCEDURE/ACCESSORY TOOL USAGE



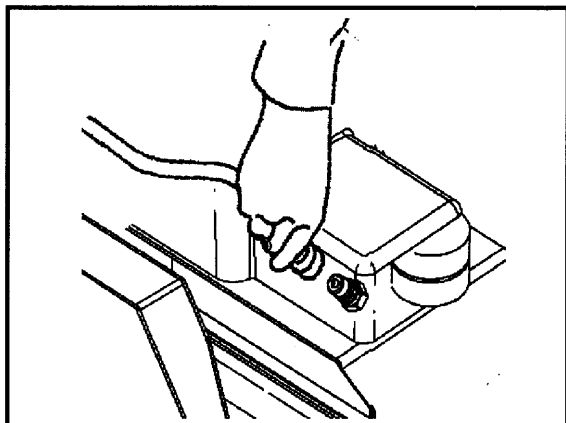
STEP
5

Use a fan, to speed dry.



STEP
6

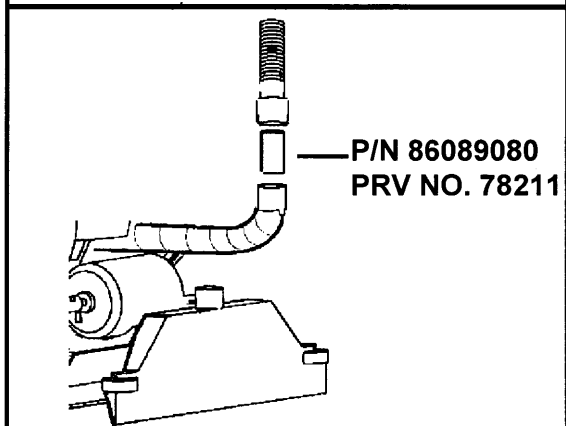
Empty recovery tank by releasing dump hose. Use a hose with cold water to clean out the recovery tank. Also drain solution tank after each use.



STEP
1

ACCESSORY TOOL USAGE

Insert collar over fitting.



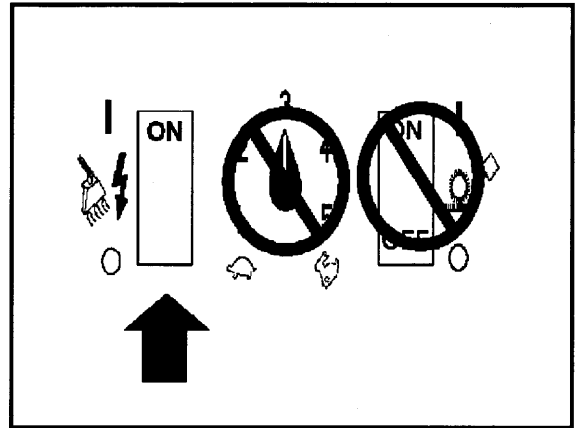
STEP
2

Insert adaptor into vac shoe hose. Then insert accessory tool cuff onto adaptor.

ACCESSORY TOOL USAGE/BRUSH ADJUSTMENT

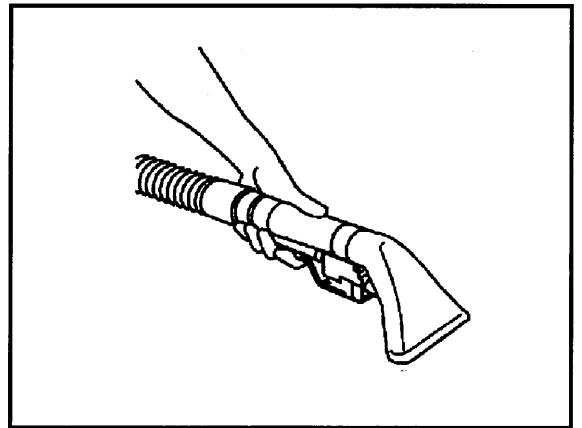
Turn Main Power Switch "ON" - "I"

STEP
3



Squeeze handle on accessory tool to begin cleaning.

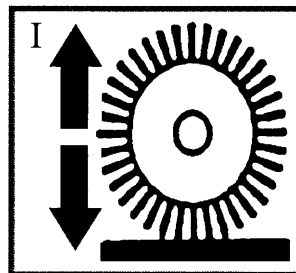
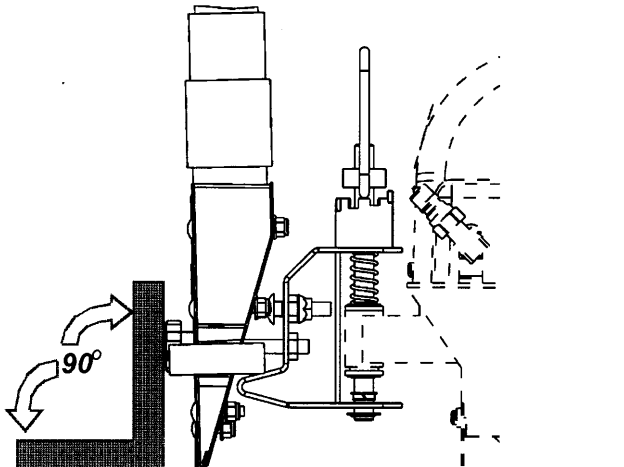
STEP
4



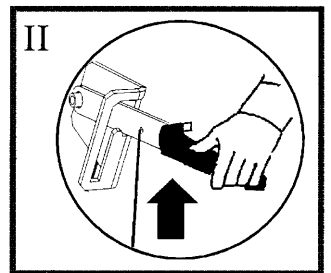
BRUSH ADJUSTMENT

NOTE: For good operation the brush must skim the carpet.

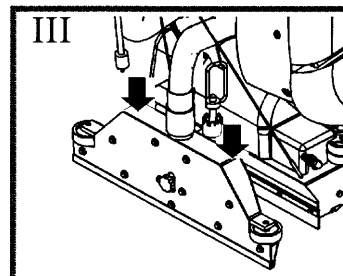
Adjust brush to 90°



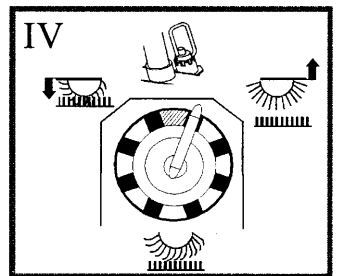
To adjust the brush



Raise handle to
"Storage Position"



Push down on
squeegee assembly



Adjust brush to correct
height for carpet.

MAINTENANCE

PERIODIC MAINTENANCE

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

NOTE: Do not use pins, wire, etc. to clean nozzles as this could destroy 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 screws kept tight. If the cable insulation is broken or frayed, repair or replace it immediately. Don't take chances with electrical fire or shock.

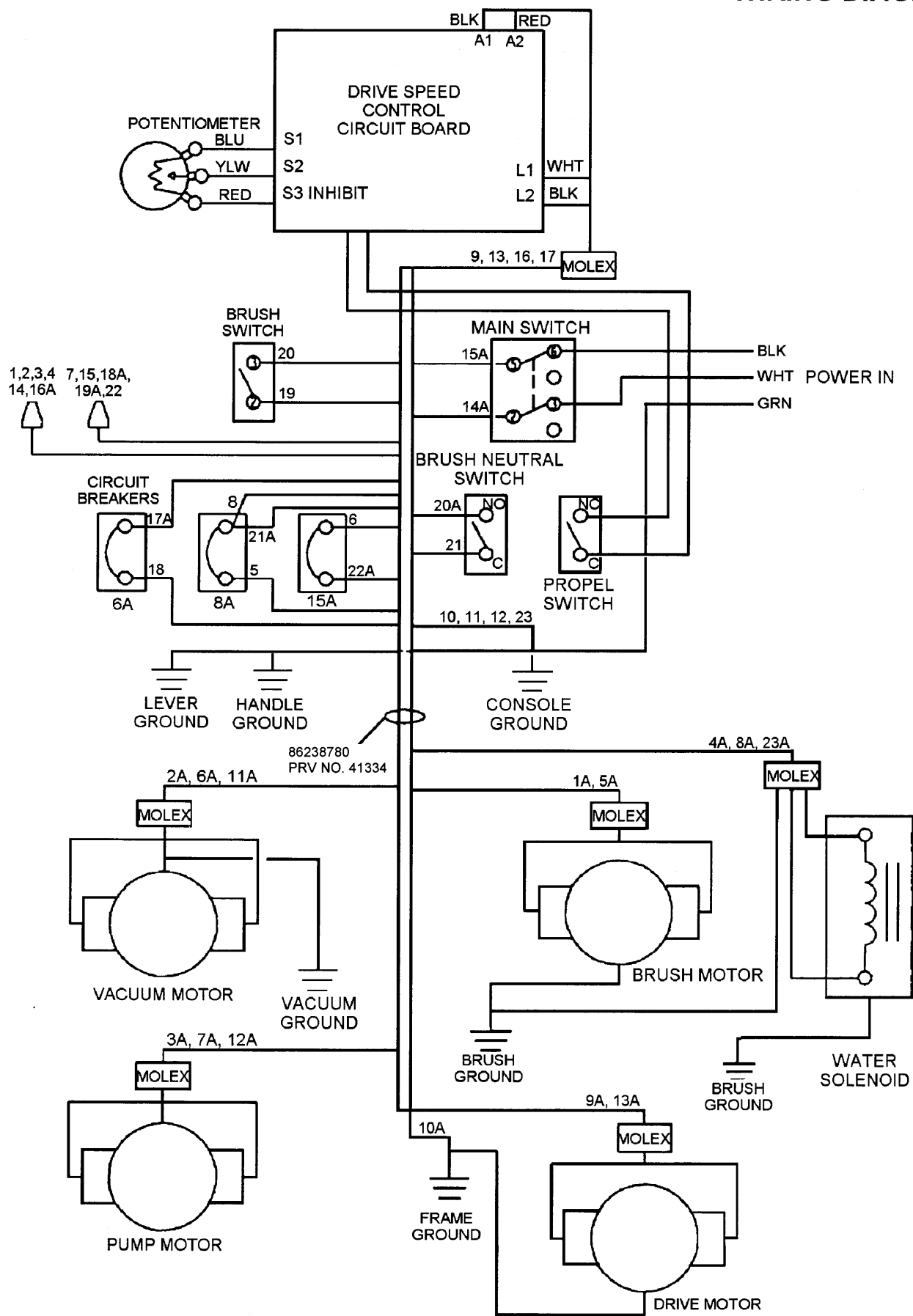
DAILY / REGULAR MAINTENANCE

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

1. Empty unused cleaning solution from the solution tank.
2. Inspect and clean filter screen in solution tank.
3. Flush pumping system with 4 to 7 liters of clean, hot 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 1-10 bleach to water solution. Waste water should be disposed of properly.
5. Check for and remove any lint or debris around vac shoe.
6. Check spray jets for full-spray pattern.
7. Remove lint and dirt build-up from brush and housing.

NOTE: Always store machine with brush in "Store" position.

WIRING DIAGRAM

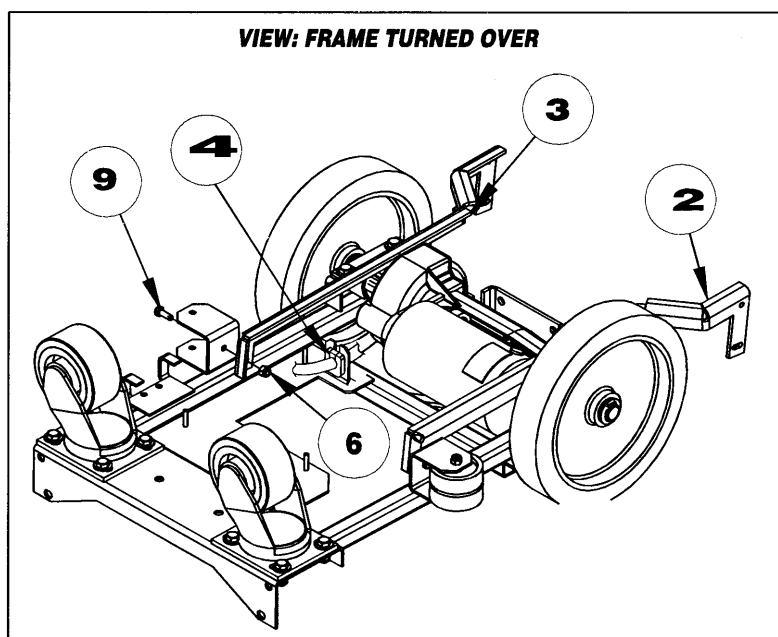
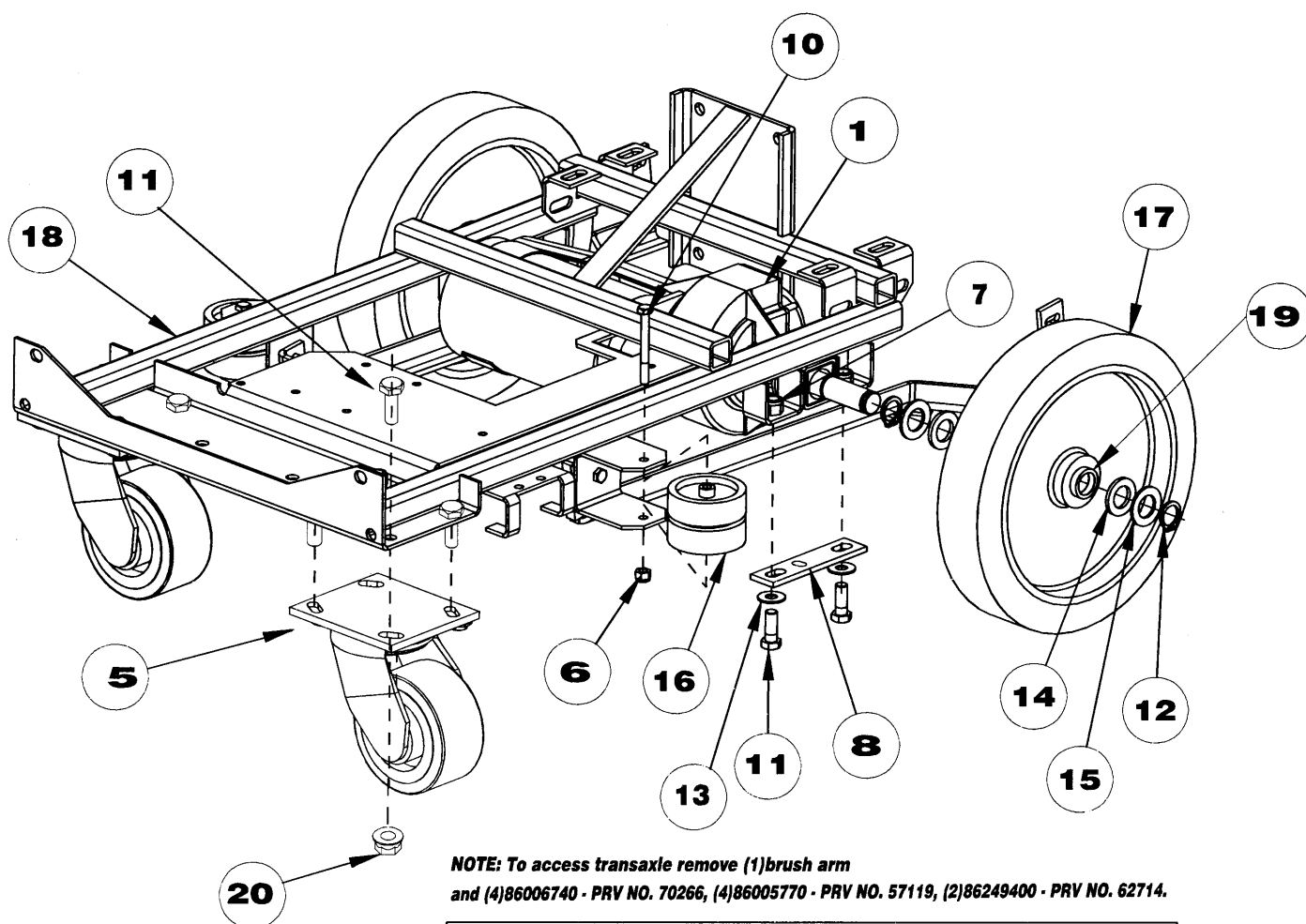


TROUBLESHOOTING

PROBLEM.	CAUSE	SOLUTION
No power, nothing runs	Is the cord plugged in?	Plug in cord.
	Circuit breaker tripped in building.	Reset breaker.
	Faulty Switch.	Call for service.
	Faulty power cord or pigtail	Call for service.
Vacuum motor will not run	Vacuum circuit breaker tripped.	Reset breaker.
	Faulty main vacuum switch.	Call for service.
	Loose wiring.	Call for service.
	Faulty vac motor.	Call for service.
Vacuum motor runs but suction is poor	Debris lodged in vac shoe.	Remove debris from vac shoe.
	Dome gasket defective or missing.	Replace as necessary.
	Vacuum hose cracked or hose cuff loose.	Replace or repair as necessary.
	Incorrect vac shoe angle.	Adjust as necessary.
	Recovery tank full / float ball stuck in the up position	Drain and rinse recovery tank, free float ball.
	Clamp loose on vacuum motor.	Call for service.
	Recovery tank inlet loose or gasket defective.	Call for service.
	Vac shut-off engaged.	Drain recovery tank.
Poor or no water flow (carpet is streaky)	Solution filter clogged.	Drain solution tank and clean solution filter.
	Jets clogged or missing.	Clean using a vinegar/water solution or replace.
	Faulty solenoid.	Call for service.
	Propel lever not engaged.	Brush switch must be on and propel lever squeezed to activate spray.
Brush does not spin	Brush switch on?	Turn on brush switch.
	Brush circuit breaker tripped.	Reset breaker.
	Propel lever not engaged.	Propel lever must be squeezed to activate brush.
	Brush belt broken.	Replace as necessary.
	Faulty brush motor.	Call for service.
Machine will not propel when handles are squeezed.	Circuit breaker tripped.	Reset breaker.
	Speed control knob set at zero.	Turn speed control knob between 1-5.
	Faulty speed control board	Call for service.
	Faulty propel motor.	Call for service.
Solution / brush turn on when brush switch engaged.	Faulty micro switch.	Call for service.

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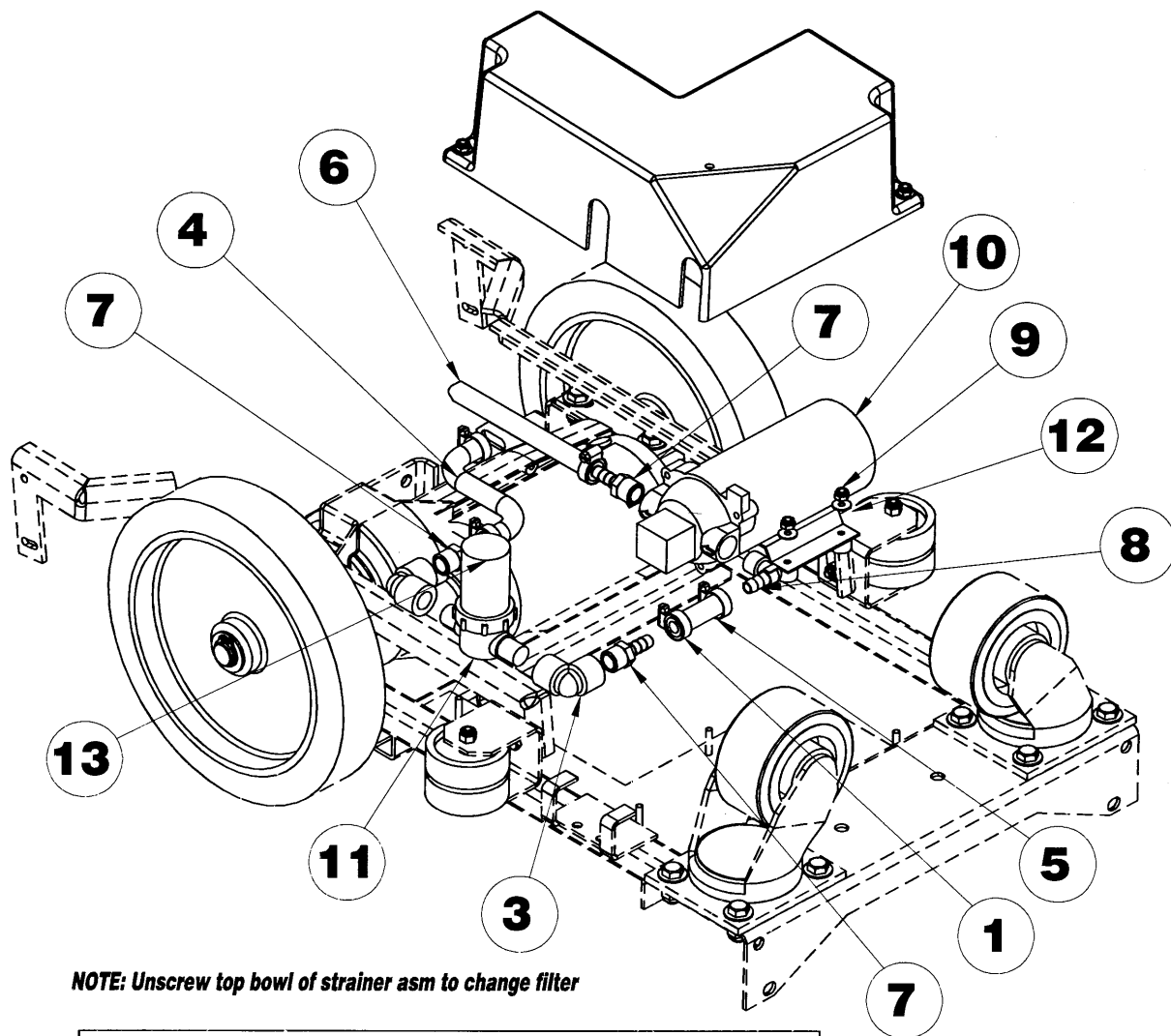
FRAME ASSEMBLY



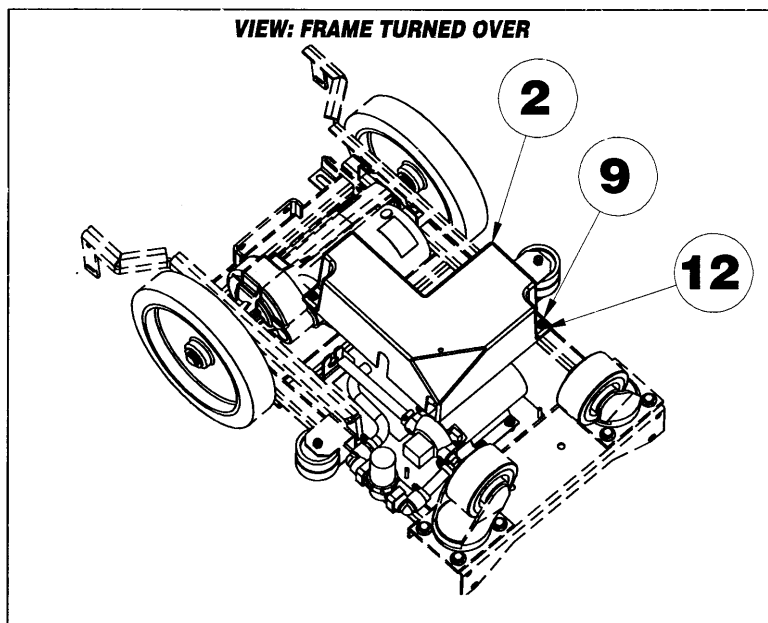
FRAME ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86257760	05120	1	TRANSAXLE, 90VDC .13HP		
-	86216160	140593	-	BRUSH SET, TRANSAXLE 05120 CCL		SERVICE PART ONLY
2	86091320	05130	1	ARM, BRUSH HOUSING RIGHT		
3	86091330	05131	1	ARM, BRUSH HOUSING LEFT		
4	86256050	730175	1	STRAIN RELIEF, 18/3 STR .75		
5	86002310	18041	2	CASTER, 4 DIA X 2W X 3.56R		
6	86005680	57047	4	NUT, 1/4-20 HEX NYLOCK		
7	86005770	57119	12	NUT, 3/8-16 HEX NYLOCK		
8	86249400	62714	2	PLATE, DRIVE AXLE		
9	86273780	70015	2	SCR, 1/4--20x 3/4 HHCS SS		
10	86273800	70017	2	SCR, 1/4-20 X 2.50 HHCS SS		
11	86006740	70266	20	SCR, 3/8-16 X 1.00 HHCS GR5		
12	86008710	80623	4	RING, 3/4 RETAINING HD SH		
13	86278910	87003	8	WASHER, 3/8 X 7/8 FLAT SS		
14	86279420	87156	4	WASHER, 3/4 X 1.25 NYL		
15	86279530	87173	4	WASHER, .77 X 1.31 FLAT SS		
16	86259690	89051	4	WHEEL, VAC SHOE		
17	86259830	89161	2	WHEEL ASM.		
18	86075960	89137	1	FRAME, WELDMENT		
19	86135030	09123	-	BEARING, ROLLER CLUTCH 1OD X .75ID		SERVICE PART ONLY
20	86270880	57032	8	NUT, 3/8-16 SERRATED FLG		

PUMP ASSEMBLY



NOTE: Unscrew top bowl of strainer asm to change filter

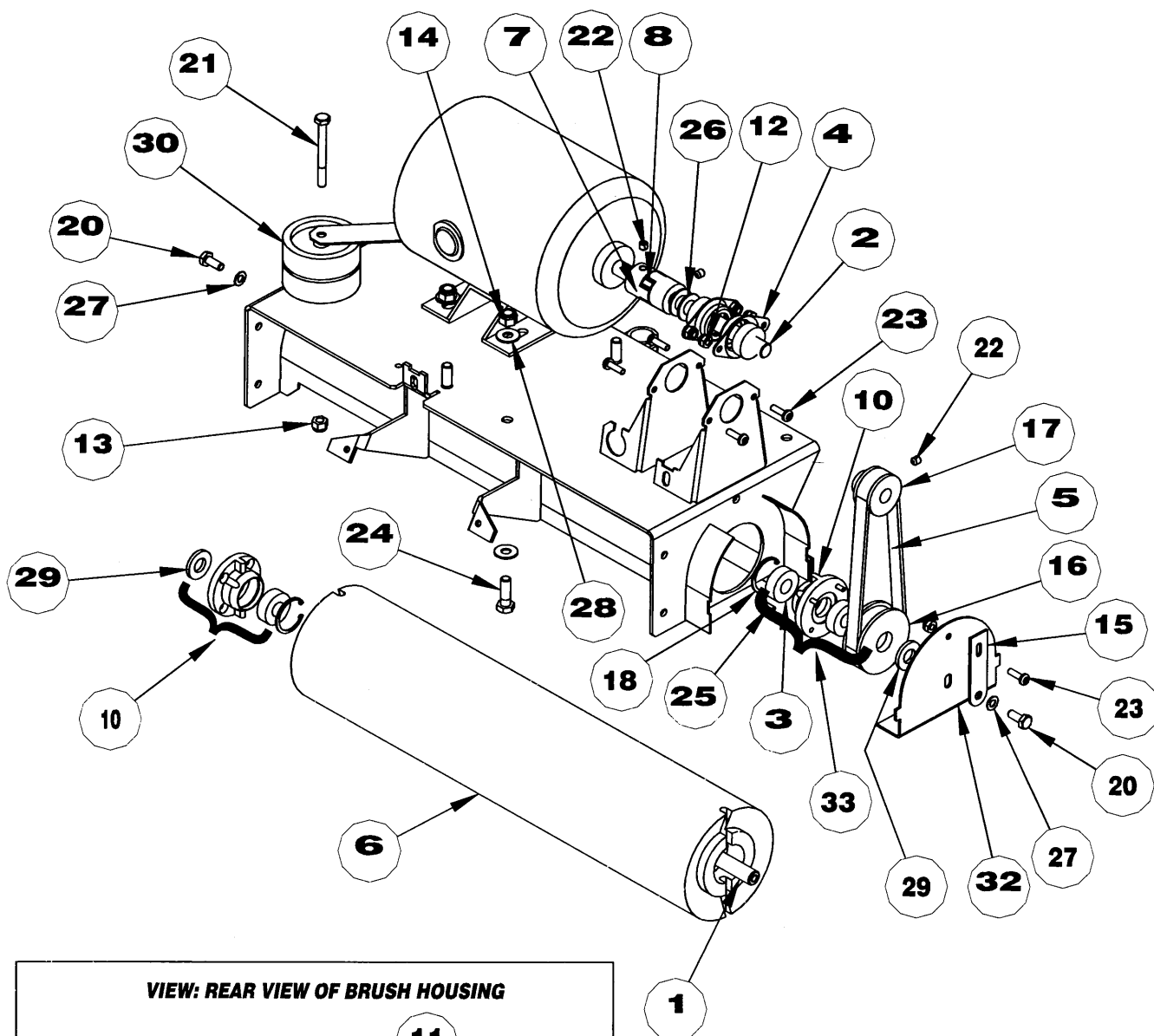


NOTE: To access pump asm remove items 86063750 – PRV NO. 27788, (2)86005640 – PRV NO. 57030, (2)86010650 – PRV NO. 87018

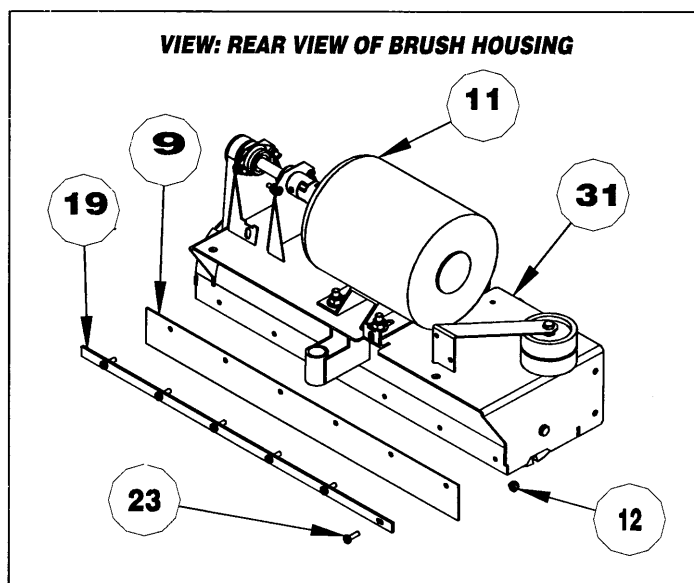
PUMP ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86233150	20042	5	CLAMP, 3/8 WORM GEAR		
2	86063750	27788	1	COVER, PUMP		
3	86235450	31068	2	ELBOW, 3/8 FPT PVC SCH 80		
4	86281150	39282	1	HOSE, 3/8 WIRE BOUND X 7		
5	86281680	39486	1	HOSE, 3/8 NYLOBRAID X 2		
6	86281780	39502	1	HOSE, 3/8 NYLOBRAID X 33		
7	86197510	40010	3	HOSEBARB, 3/8 MPT X 3/8		
8	86197910	40034	1	HOSEBARB, 3/8 MPT X 3/8 9OD BRASS		
9	86005640	57030	6	NUT, 10-32 HEX NYLOCK		
10	86026360	65170	-	PUMP ASSEMBLY		SERVICE PART ONLY
11	86007940	73836	1	STRAINER, DEEP 3/8 NPT 80 MESH		
12	86010650	87018	6	WASHER, #10 X 9/16 FLAT		
13	86136800	73839	-	SCREEN, 80 MESH STAINER DEEP		SERVICE PART ONLY

BRUSH ASSEMBLY



VIEW: REAR VIEW OF BRUSH HOUSING

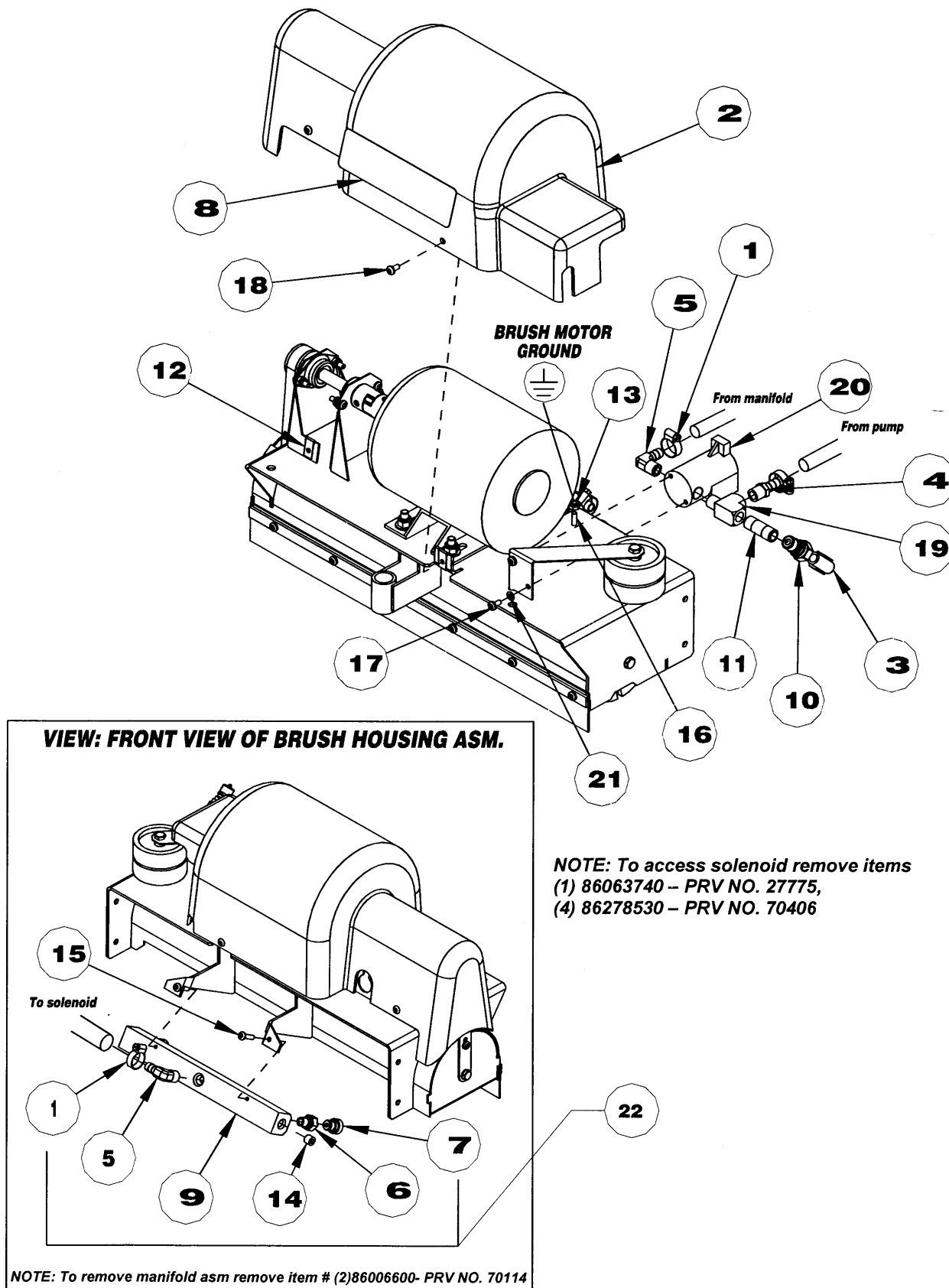


NOTE: To access brush/pulley asm, remove (1) 86273750 – PRV NO. 70011, (2) 86010660 - PRV NO. 87025, (1) 86078630 – PRV NO. 140277.

BRUSH ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86227630	03100	1	AXLE, .5 X 19.5 X 1/4-20		
2	86227640	03101	1	AXLE, .5 X 4.34 W/ FLATS		
3	86000900	09019	5	BEARING, 1.125OD X .50ID X .375		
4	86000920	09055	2	BEARING, FLANGE		
5	86229420	11043	1	BELT, TIMING .375P 16.5PL .5W		
6	86001120	12023	1	BRUSH, 18L X 4.5OD		
7	86234540	22087	2	COUPLER, 1/2 JAW		
8	86234550	22088	1	COUPLER, SPIDER		
9	86238590	36188	1	GUARD, SPLASH		
10	86025320	42072	-	IDLER ASSEMBLY, BRUSH		SERVICE PART ONLY - INCLUDES (1) 09019, (1) 86241210 – PRV NO. 42069, (1) 67093
11	86026130	53635	-	MOTOR ASSEMBLY, BRUSH		SERVICE PART ONLY - INCLUDES (1) 86247070 – PRV NO. 53093 W/ MOLEX CONNECTOR
12	86005640	57030	11	NUT, 10-32 HEX NYLOCK		
13	86005680	57047	1	NUT, 1/4-20 HEX NYLOCK		
14	86005750	57113	4	NUT, 5/16-18 HEX NYLOCK		
15	86081460	62747	1	PLATE, BELT ADJUSTMENT		
16	86250660	64094	1	PULLEY, TIMING 2.029PD X .375P		
17	86250670	64095	1	PULLEY, TIMING .375P 10T .5ID		
18	86272760	67093	2	RING, 1.13 RETAINING HO		
19	86086190	67395	1	RETAINER, SPLASH GUARD		
20	86273750	70011	2	SCR, 1/4-20 X 5/8 HHCS SS		
21	86273800	70017	1	SCR, 1/4-20 X 2.50 HHCS SS		
22	86006610	70124	3	SCR, 1/4-20 X 1/4 SH KCP		
23	86274270	70160	11	SCR, 10-32 X 5/8 PPHMS		
24	86006750	70302	4	SCR, 5/16-18 X 1.00 HHCS GR5		
25	86275380	70448	4	SCR, 6-32 X 1/2 PFHMS PLTD		
26	86278850	80613	2	WASHER, .506 X .94 NYL		
27	86010660	87025	2	WASHER, 1/4 EXT. STAR SS		
28	86010670	87029	8	WASHER, 5/16 X 3/4 SS		
29	86279580	87183	2	WASHER, 1/2 X 1.00 NYL		
30	86259690	89051	2	WHEEL, VAC SHOE		
31	86090400	89134	1	WELDMENT, BRUSH HOUSING		
32	86078630	140277	1	BRKT, BRUSH HOUSING END CAP		
33	86026220	64097	-	PULLEY ASSEMBLY, BRUSH		SERVICE PART ONLY - INCLUDES (2) 09019, (1) 86241210 – PRV NO. 42069, (1) 64095, (1) 67093, (4) 70448

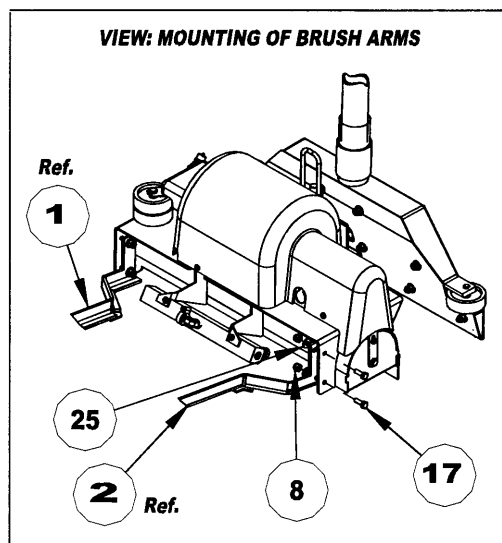
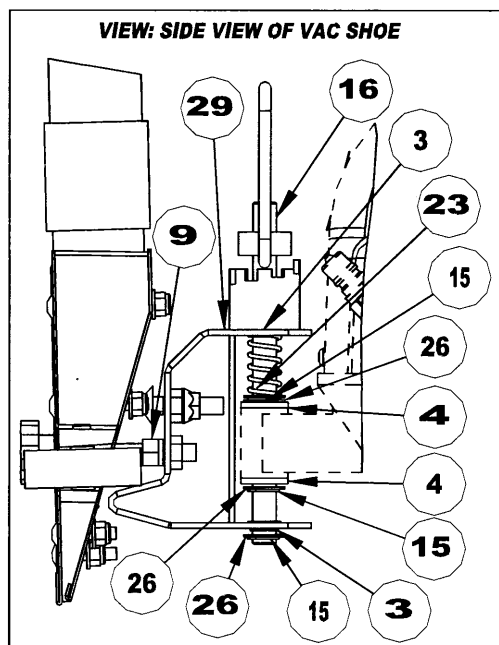
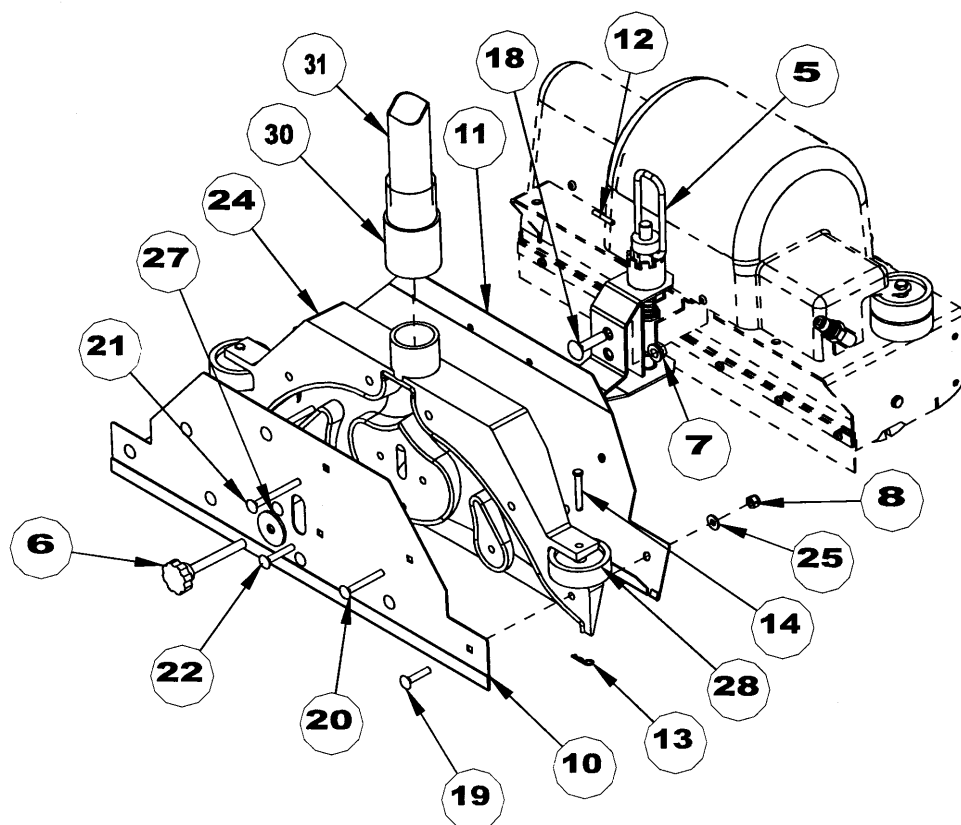
SOLENOID AND MANIFOLD ASSEMBLIES



SOLENOID AND MANIFOLD ASSEMBLIES PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86233150	20042	3	CLAMP, 3/8 WORM GEAR		
2	86063740	27775	1	COVER, BRUSH MOTOR		
3	86197360	31016	1	ELBOW, 1/4 NPT STREET		
4	86197550	40014	1	HOSEBARB, 1/4 MPT 3/8		
5	86197600	40033	2	HOSEBARB, 1/4 MPT X 3/8H 90°		
6	86004570	44067	2	JET, MINI PROMAX BODY		
7	86004580	44068	2	JET, MINI PROMAX 9504		
8	86245830	50947	1	LABEL, ADJ INSTRUCTION		
9	86005540	54165	1	MANIFOLD		
10	86005580	56012	1	NIPPLE, 1/4 FPT QD		
11	86197670	56023	1	NIPPLE, 1/4 X 1.5		
12	86270860	57028	4	NUT, 10-24 TINNERMAN		
13	86005640	57030	1	NUT, 10-32 HEX NYLOCK		
14	86006180	66095	2	PLUG, 1/8 MPT HEX BRASS		
15	86006600	70114	2	SCR, #10 X 3/4 PHST TYPE B		
16	86274270	70160	1	SCR, 10-32 X 5/8 PPHMS		
17	86274290	70162	2	SCR, 10-32 X 3/8 PPHMS SS		
18	86006870	70406	4	SCR, #10 X 3/8 PHSM TYPE B BLK		
19	86187760	78308	1	TEE, 1/4 STREET		
20	86026480	84157	-	SOLENOID ASSEMBLY		SERVICE PART ONLY - INCLUDES (1) 86258870 - PRV NO. 84168 W/ MOLEX CONN.
21	86010640	87016	3	WASHER, #10 EXT. STAR SS		
22	86026040	54168	-	MANIFOLD ASSEMBLY		SERVICE PART ONLY - INCLUDES (1) 54165, (2) 44067, (2) 44068, (2) 66095, (1) 40033

VACUUM SHOE ASSEMBLY

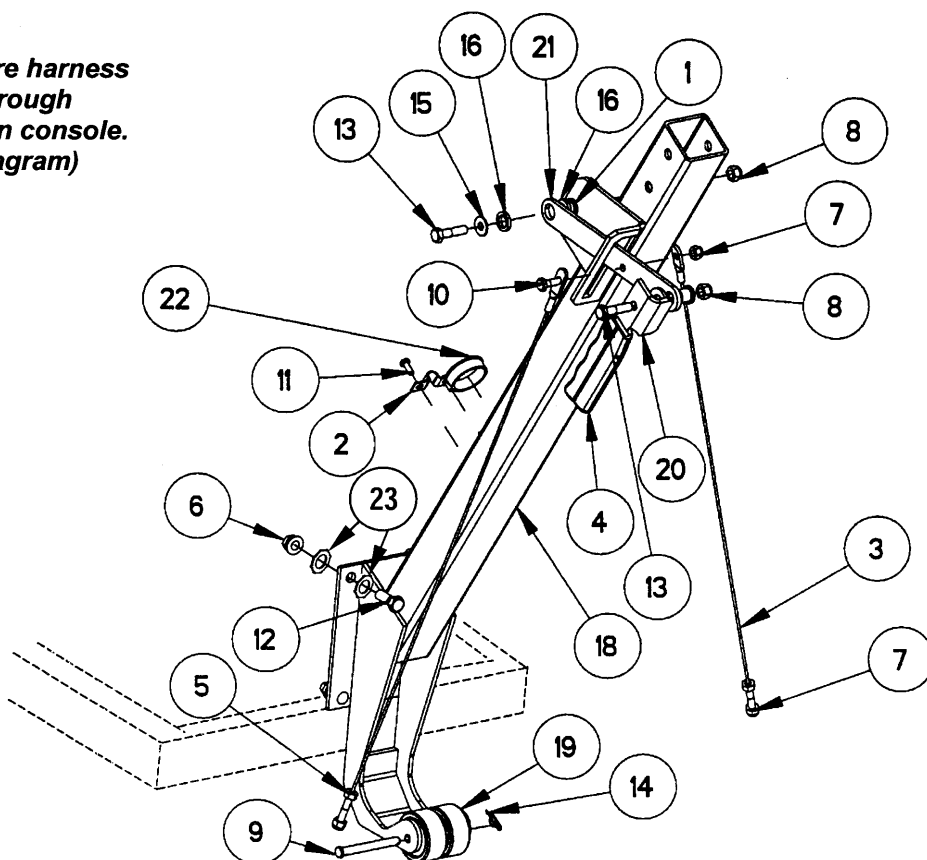


VACUUM SHOE ASSEMBLY PARTS LIST

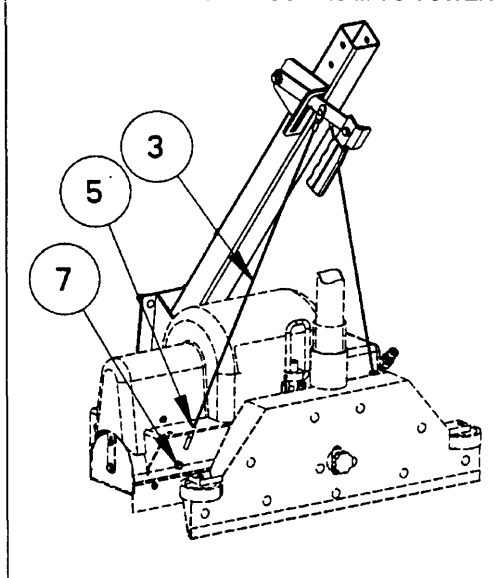
REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86026040	05130	1	ARM, BRUSH HOUSING RIGHT		
2	86091330	05131	1	ARM, BRUSH HOUSING LEFT		
3	86228580	09025	2	BEARING, 1/2 NYLINER SI		
4	86231300	14593	2	BUSHING, BRZ FLG .50 X .75 X .75		
5	86095770	89162	1	WELDMENT, HEIGHT ADJ ROD		
6	86242070	48071	1	KNOB, 1.38OD X 3/8-16 X 3.00		
7	86270880	57032	1	NUT, 3/8-16 HEX FLG		
8	86005680	57047	15	NUT, 1/4-20 HEX NYLOCK		
9	86005770	57119	1	NUT, 3/8-16 HEX NYLOCK		
10	86080980	62660	1	PLATE, VAC		
11	86081000	62664	1	PLATE, VAC TRAP		
12	86272370	66205	1	PIN, ROLL 3/16 X 1.13		
13	86272390	66219	2	PIN, COTTER HAIR .059 X 1		
14	86006250	66231	2	PIN, CLEVIS 1/4 X 1.75		
15	86272810	67132	3	RING, 1/2 RETAINING HD SH		
16	86251940	67394	1	ROD, VAC PIVOT		
17	86273780	70015	4	SCR, 1/4-20 X 3/4 HHCS SS		
18	86276280	70624	1	SCR, 3/8-16 X 1.5 CARRIAGE PLTD		
19	86276330	70634	5	SCR, 1/4-20 X 1.25 CARRIAGE		
20	86276340	70635	2	SCR, 1/4-20 X 2.0 CARRIAGE		
21	86276350	70636	2	SCR, 1/4-20 X 2.5 CARRIAGE		
22	86276360	70637	2	SCR, 1/4-20 X 1.5 CARRIAGE		
23	86255290	73907	1	SPRING, COMP .550ID X .720OD X .085W		
24	86258620	85036	1	VACUUM SHOE, INSERT		
25	86010630	87013	15	WASHER, 1/4 X 5/8 FLAT SS		
26	86279320	87136	4	WASHER, .52 X .88 FLAT		
27	86279490	87167	1	WASHER, .39 X 1.50 FLAT		
28	86259690	89051	2	WHEEL, VAC SHOE		
29	86091520	140294	1	BRKT, VAC SHOE ADJ. WELDMENT		
30	86003100	27814	1	CUFF, BLK VAC HOSE		
31	86004300	39492	1	HOSE, 1.5 BLK VAC X 30		

LIFT LEVER AND LOWER TOWER ASM.

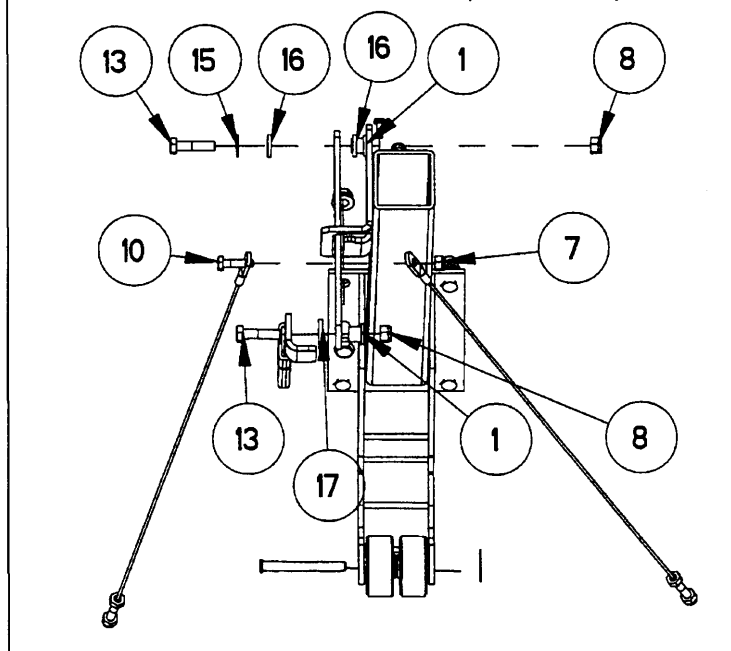
NOTE: Main wire harness
from motors through
bushing to main console.
(Ref. Wiring Diagram)



VIEW: MOUNTING OF BRUSH ASM. TO TOWER



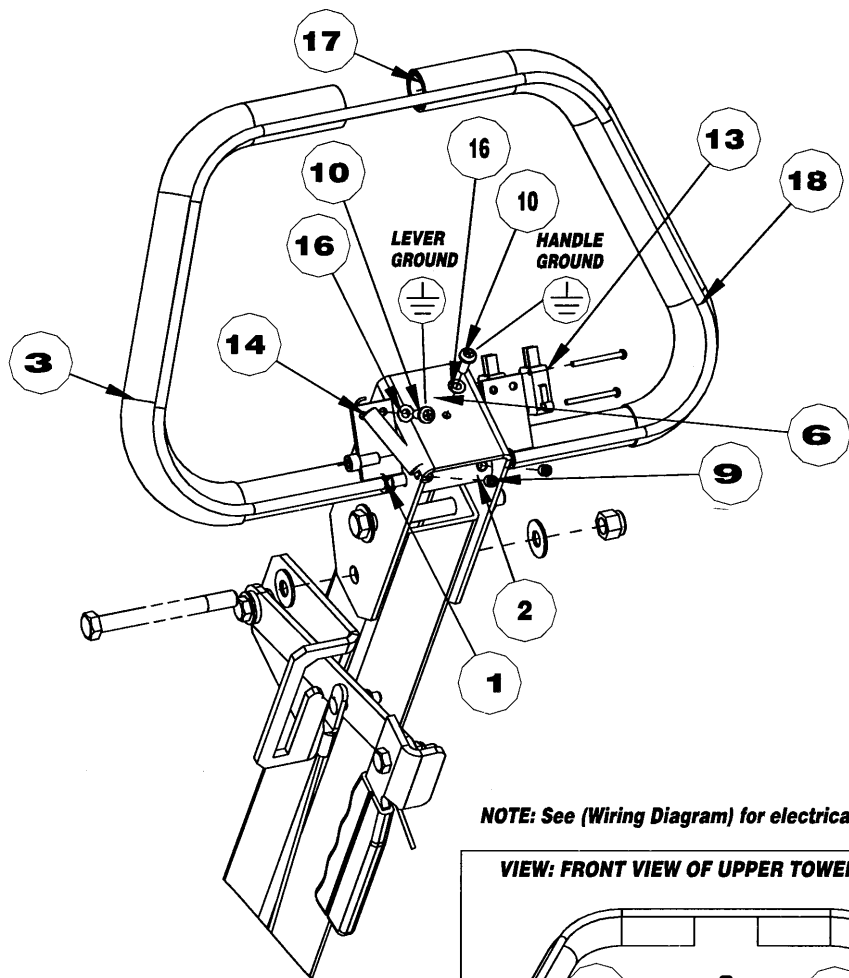
VIEW: FRONT VIEW OF TOWER (LIFT HANDLE)



LIFT LEVER AND LOWER TOWER ASSEMBLY PARTS LIST

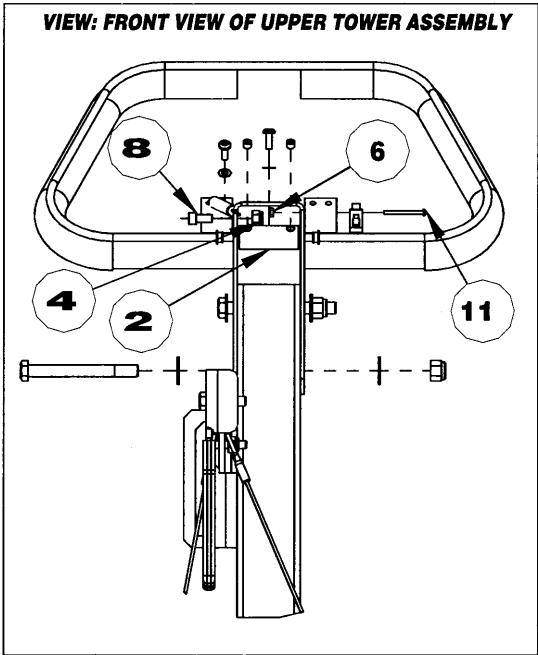
REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86228840	09124	2	BEARING, FLANGED .313ID X .502OD		
2	86075260	20086	1	CLAMP, CORD		
3	86231790	27776	2	CABLE, 25 X 3/32 X 1/4 EYE X 1/4 STUD		
4	86238310	36133	1	GRIP, 3/16 X 1.0 FLAT BAR		
5	86270770	57006	2	NUT, 1/4-20 HEX		
6	86270880	57032	4	NUT, 3/8-16 HEX FLG		
7	86005680	57047	3	NUT, 1/4-20 HEX NYLOCK		
8	86005750	57113	2	NUT, 5/16-18 HEX NYLOCK		
9	86272460	66268	1	PIN, CLEVIS 5/16 X 2.75		
10	86273810	70018	1	SCR, 1/4-20 X 1.00 HHCS SS		
11	86274350	70187	2	SCR, 10-24 X 1/2 PHTC -F-		
12	86006740	70266	4	SCR, 3/8-16 X 1.00 HHCS GR5		
13	86274910	70325	2	SCR, 5/16-18 X 1.25 HHCS GR5		
14	86008660	80605	1	COTTER, 5/16 RING		
15	86010670	87029	1	WASHER, 5/16 X 3/4 SS		
16	86279350	87140	2	WASHER, WAVE 1/2ID X 3/4D X .125		
17	86279580	87183	1	WASHER, 1/2 X 1.00 NYL		
18	86095640	89128	1	WELDMENT, POST LOWER CONTROL		
19	86259810	89147	2	WHEEL, 2OD X .31ID X .88W PLASTIC		
20	86069100	140286	1	BRKT, LIFT LEVER HANDLE		
21	86069110	140287	1	BRKT, LIFT LEVER BASE		
22	86231210	140317	1	BUSHING, 1.5 HOLE SNAP		
23	86279010	87024	8	WASHER, 3/8 STAR		

UPPER TOWER ASSEMBLY

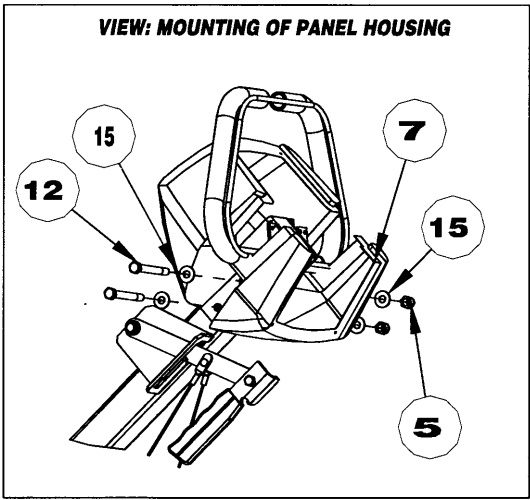


NOTE: See (Wiring Diagram) for electrical wiring layout.

VIEW: FRONT VIEW OF UPPER TOWER ASSEMBLY



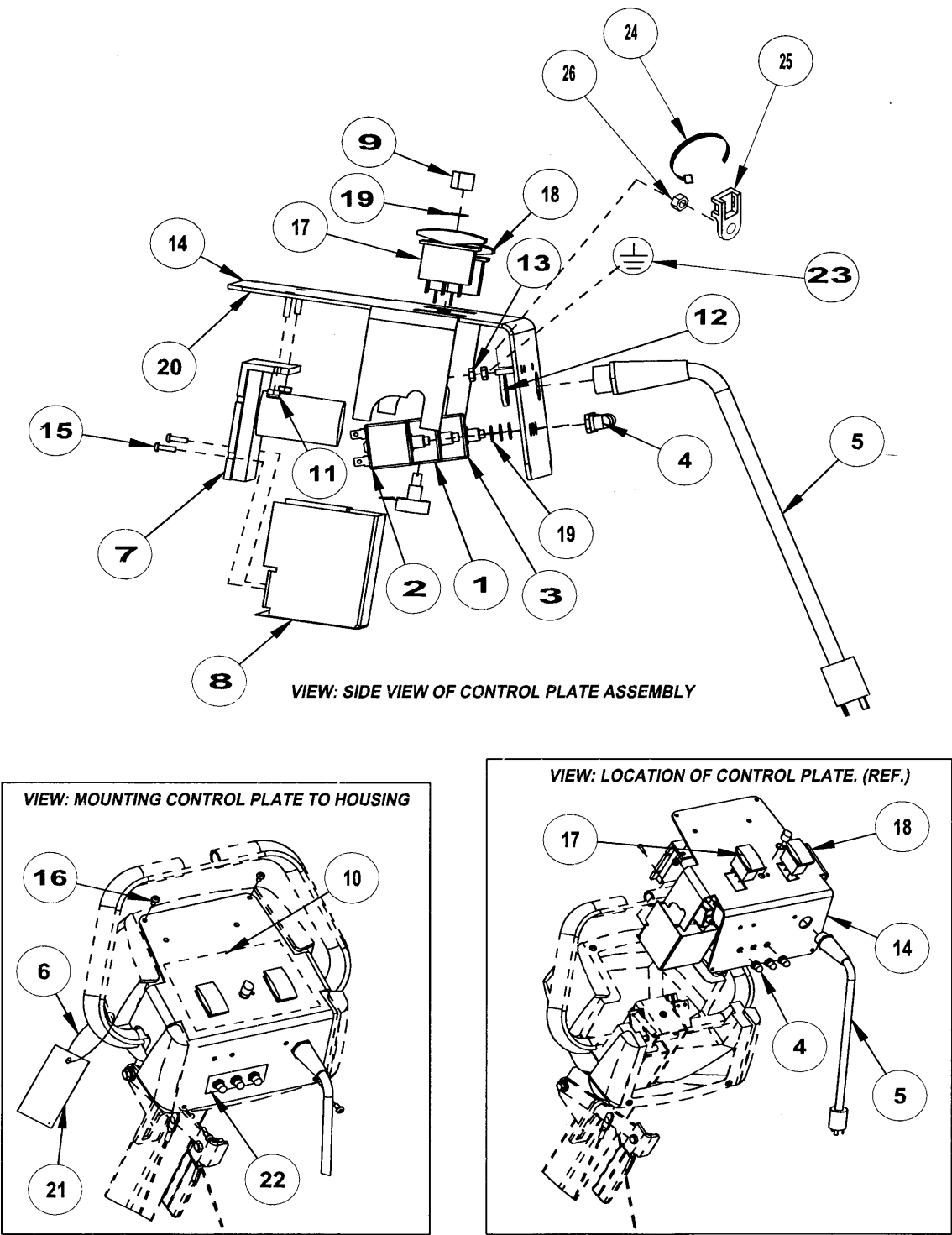
VIEW: MOUNTING OF PANEL HOUSING



UPPER TOWER ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86228860	09128	2	BEARING, 1/4 NYLINER SI		
2	86233680	27779	1	COLLAR, .75OD X .281ID X 1.875		
3	86238270	36046	2	GRIP, .813ID X .085W X 13.0L PVC		
4	86005680	57047	1	NUT, 1/4-20 HEX NYLOCK		
5	86005770	57119	2	NUT, 3/8-16 HEX NYLOCK		
6	86271280	57163	2	NUT, 4-40 HEX W/ STAR		
7	86062840	61346	1	PANEL, CONTROL		
8	86274110	70094	1	SCR, 1/4-20 X 1/2 SHCS		
9	86006610	70124	2	SCR, 1/4-20 X 1/4 SH KCP		
10	86274350	70187	2	SCR, 10-24 X 1/2 PHTC -F-		
11	86275250	70401	2	SCR, 4-40 X 1.25 PPHMS		
12	86275860	70554	2	SCR, 3/8-16 X 3.50 HHCS GR5		
13	86007160	72157	2	SWITCH, 10A ROLLER MINI		
14	86255020	73210	1	SPRING, EXT .36D X 1.5L X .058W		
15	86278910	87003	4	WASHER, 3/8 X 7/8 FLAT SS		
16	86010640	87016	2	WASHER, #10 EXT STAR SS		
17	86092800	89133	1	HANDLE, WELDMENT		
18	86095680	89138	1	WELDMENT, PROPEL CONTROL		

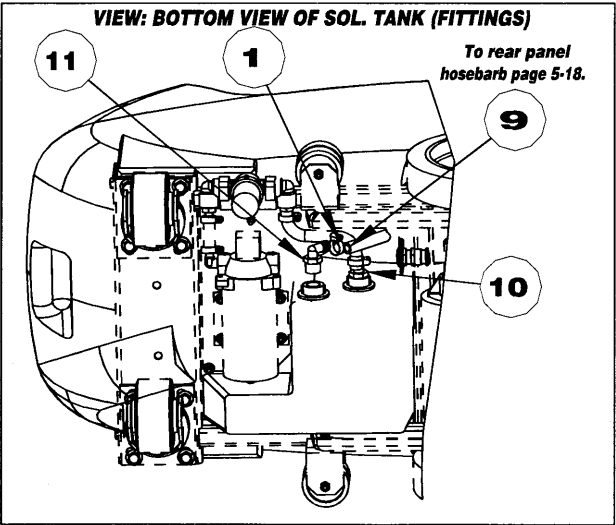
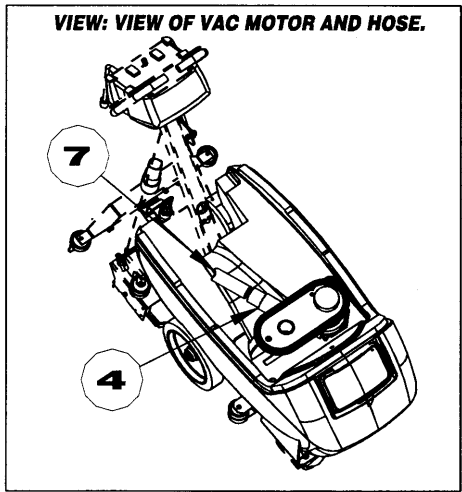
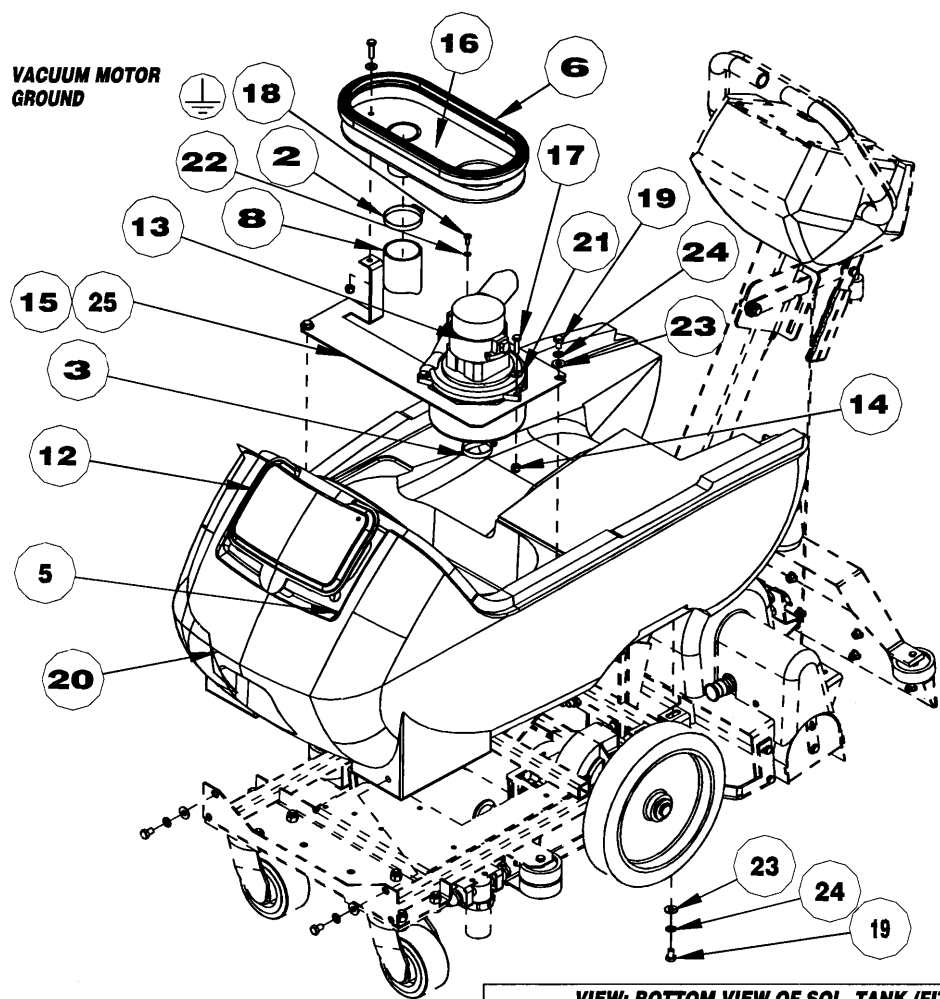
CONTROL PANEL ASSEMBLY



CONTROL PANEL ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86230170	14668	1	BREAKER, 250VAC, 50VDC		
2	86001980	14700	1	BREAKER, 15A 250VAC, 50VDC		
3	86230210	14832	1	BREAKER, 6A VDE		
4	86002010	14942	3	BOOT, 3/8 CIRCUIT BREAKER		
5	86234310	23675	1	CORD ASM, 12/3 PIGTAIL X 24"		
6	86002870	27417	1	CORD, 99807 1/8 X 12		
7	86234040	27774	1	CONTROL PROPEL BOARD 115/240V		
8	86075520	27795	1	COVER, PROPEL BOARD		
9	86242020	48043	1	KNOB, SPEED CONTROL		
10	86242920	500234	1	LABEL, CONTROL PANEL		
11	86270850	57026	2	NUT, 8-32 HEX NYLOCK		
12	86005670	57040	1	NUT, 1/2 NPT CONDUIT		
13	86005720	57106	2	NUT, 8-32 HEX W/ STAR		
14	86081010	62666	1	PLATE, CONTROL PANEL		
15	86274510	70219	2	SCR, #6 X 1/2 SHT MTL BLK		
16	86006870	70406	4	SCR, #10 X 3/8 PHSM TYPE B BLK		
17	86007130	72128	1	SWITCH, DPDT 2-POSITION ROCKER		
18	86007140	72130	1	SWITCH, SPST 2-POSITION ROCKER		
19	86010750	87100	4	WASHER, 3/8 INT STAR		
20	86133380	99843	2.8'	GASKET, 1/8 X 1/2 1SDA FOAM BLK		
21	86232320	500235	1	CARD, INSTRUCTION		
22	86242420	500079	1	LABEL, CIRCUIT BREAKER		
23	86245040	50279	1	LABEL, GROUND SYMBOL		
24	86264920	27049	1	CABLE TIE, 7"		
25	86264860	05153	1	ANCHOR, CABLE TIE #8 MOUNT		
26	86270920	57049	1	NUT, 6-32 HEX NYLOCK		

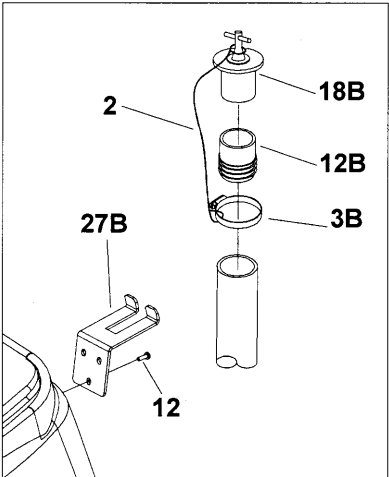
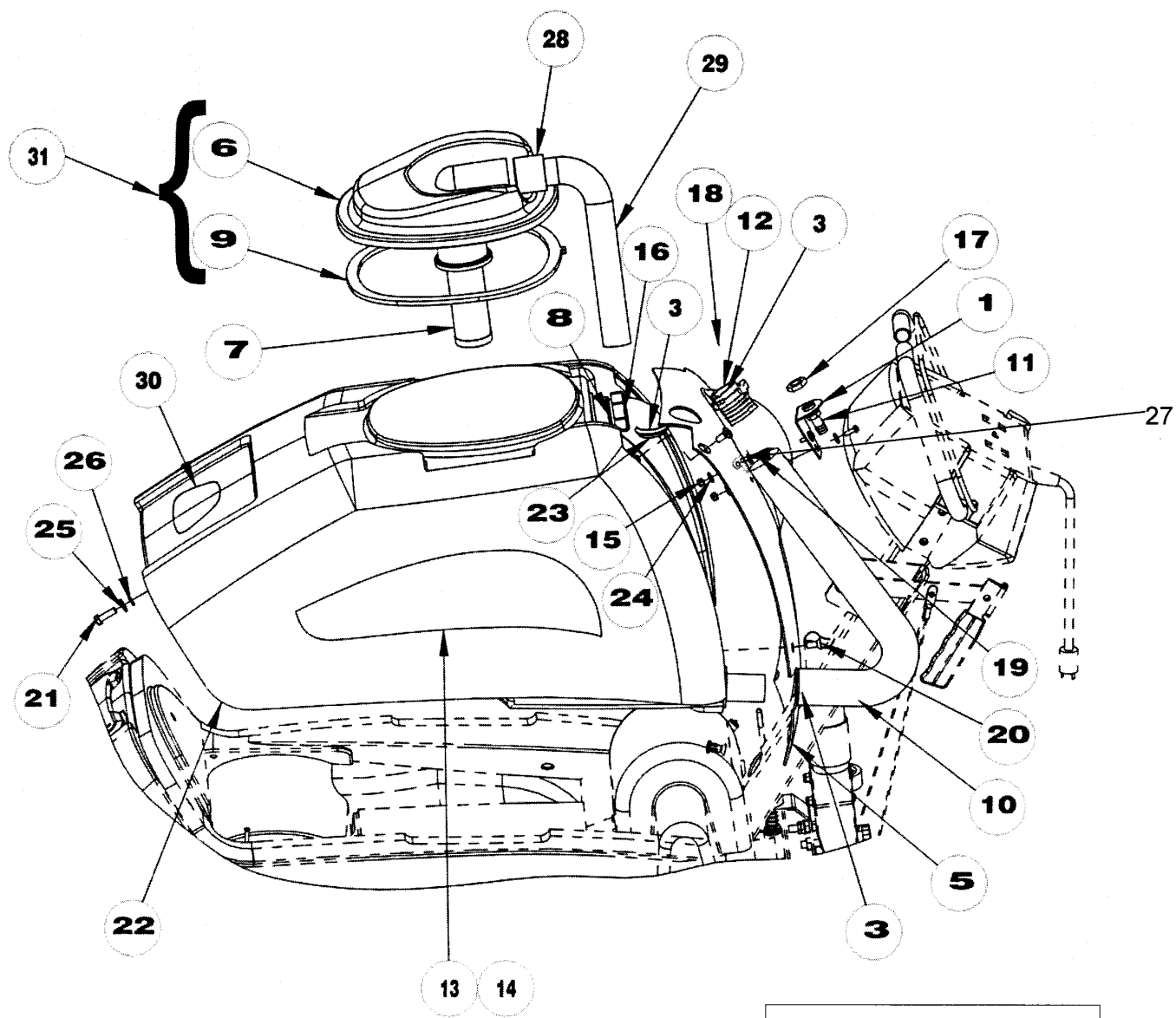
SOLUTION TANK ASSEMBLY



SOLUTION TANK ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86233150	20042	1	CLAMP, 3/8 WORM GEAR		
2	86002380	20046	2	CLAMP, 2.25 WORM GEAR		
3	86002390	20063	1	CLAMP, 1.75 WORM GEAR X .312		
4	86003100	27814	1	CUFF, BLK VAC HOSE		
5	86002870	27417	1	CORD, 99807 1/8 X 12		
6	86237710	35226	1	GASKET, DOME 9ID X 30.75L		
7	86004190	39337	1	HOSE, 1.5 BLUE VAC X 24		
8	86280990	39239	1	HOSE, 2" VAC X 20"	1000019689	
9	86281790	39503	1	HOSE, DRAIN X 44"		
10	86197920	40023	1	HOSEBARB, 1/2 MPT X 3/8 NYLON		
11	86001530	40039	1	HOSEBARB, 1/2 MPT X 1/2 HOSE 90		
12	86005100	51296	1	LID, SOLUTION TANK		
13	86026870	53787	-	VAC MOTOR ASSEMBLY		SERVICE PART ONLY - INCLUDES (1) 86258430 - PRV NO. 53134 W/ MOLEX CONN.
-	86135340	14258	-	BRUSH SET, 120V 5.7 VAC AMETEK		SERVICE PART ONLY
-	86135320	140687	-	BRUSH SET, 120V VAC WINDSOR	*	SERVICE PART ONLY
14	86005680	57047	4	NUT, 1/4-20 HEX NYLOCK		
15	86081130	62691	1	PLATE, VAC MOTOR		
16	86033130	62754	1	PLATE, VAC MOTOR COOLING		
17	86273810	70018	4	SCR, 1/4-20 X 1.00 HHCS SS		
18	86274350	70187	1	SCR, 10-24 X 1/2 PHTC -F-		
19	86275180	70375	6	SCR, 5/16-18 X 1/2 HHCS GR5		
20	86032200	75243	1	TANK, SOLUTION		
21	86010630	87013	4	WASHER, 1/4 X 5/8 FLAT SS		
22	86010640	87016	1	WASHER, #10 EXT STAR SS		
23	86010670	87029	6	WASHER, 5/16 X 3/4 SS		
24	86279090	87067	6	WASHER, 5/16 INT STAR		

RECOVERY TANK ASSEMBLY



RECOVERY TANK ASSEMBLY PARTS LIST

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86073000	14665	1	BRKT, PT17 SIGHT TUBE		
2	86008400	78499	1	TETHER, DRAIN PLUG		
3A	86002400	20064	3	CLAMP, 2.0 WORM GEAR X .312	*	
3B	86003250	20002	1	CLAMP, 2.0" NYLON RATCHET		
	-	OPEN	-	-		
5	86063730	27765	1	COVER, CMD20 REAR		
6	86235270	28057	1	DOME, CMD20		
7	86003590	34329	1	FLOAT BALL, VAC SHUT OFF		
8	86237650	35219	1	GASKET, 1-1/2 COMPRESSION		
9	86237970	35221	1	GASKET, CMD20 DOME		
10	86004260	39472	1	HOSE, 1.5 X 24.0 DRAIN		
11	86197540	40013	1	HOSEBARB, 3/8MPT X 1/2HOSE		
12A	86004510	41391	1	HOSE, INSERT	*	
12B	86004450	40019	1	HOSEBARB, 1.5 DOUBLE MCHD		
13	86245660	50911	1	LABEL, CMD20 RIGHT		
14	86245670	50912	1	LABEL, CMD20 LEFT		
15	86005640	57030	4	NUT, 10-32 HEX NYLCK		
16	86005660	57033	1	NUT , 1.5 SLIP JOINT		
17	86247910	57044	1	NUT, 3/8 NPT HEX BRASS		
18A	86004500	41390	1	HOSE,CAP	*	
18B	86006240	66227	1	PLUG, DRAIN HOSE		
19	86274270	70160	4	SCR, 10-32 X 5/8 PPHMS		
20	86274770	70274	6	SCR, 5/16-18 X 3/4 FHMS BLK OX		
21	86006750	70302	1	SCR, 5/16-18 X 1.00 HHCS GR5		
22	86032210	75244	1	TANK, RECOVERY CMD 20		
23	86257860	78390	1	TUBE, 1.5 WASTE		
24	86010650	87018	8	WASHER, #10 X 9/16 FLAT		
25	86010670	87029	1	WASHER, 5/16 X 3/4 SS		
26	86279090	87067	1	WASHER, 5/16 INT STAR		
27A	86001370	140408	1	BRKT, HOSE HOOK	*	
27B	86001190	140133	1	BRKT, RECOVERY HOSE MTG		
28	86003010	27759	1	CUFF, HOSE 1.5" BLK A 2126		
29	86240080	39524	1	HOSE, 1.5 BLK VAC X 52"		
30	86242750	500188	1	LABEL, BETCO LOGO (GRAY)		
31	86025180	28059	-	DOME ASSEMBLY		SERVICE PART ONLY INCLUDES (1) 28057, (1) 35221, (1) 34329

SUGGESTED SPARE PARTS

PART NO.	PRV NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
86000900	09019	BEARING, 1.125OD X .500ID X .375		
86229290	11019	BELT, BRUSH DRIVE		
86234090	23065	CORD SET, 14.3 SJTW-A X 50' YELLOW		
86234400	26006	CORD END, 125V 15A M NEMA5-15P		
86003100	27814	CUFF, BLK 1.9ID VAC HOSE X 4.07		
86237050	35016	GASKET, DOME		
86076010	36054	GUARD, THREAD		
86240080	39524	HOSE, 1.5 BLU VAC X 52"		
86135890	44051	JET SEAL, MINI-QUICK		
86241650	44062	JET, 110015 MINI-QUICK		
86256590	72004	SWITCH, 125V SPST LIT RCKR		
86007700	73250	STRAINER, 3/8 FPT 80 MESH		
86229420	11043	BELT, TIMING .375P 16.5PL .5W		
86001120	12023	BRUSH, 18L X 4.5OD		
86230170	14668	BREAKER, 8A CIRCUIT		
86001980	14700	BREAKER, 15A 250VAC 50VDC		
86230210	14832	BREAKER, 6A VDE CIRCUIT		
86231790	27776	CABLE, 25 X 3/32 1/4 EYE X 1/4 STUD		
86025180	28059	DOME ASM		
86237670	35221	GASKET, DOME		
86004180	39315	HOSE, 1.5 BLU VAC X 28"		
86025320	42072	IDLER ASM, BRUSH		
86004580	44068	JET, MINI PROMAX 9504		
86026870	53787	VAC MOTOR ASM		
86026040	54168	MANIFOLD ASM		
86026220	64097	PULLEY ASM, BRUSH		
86026360	65170	PUMP ASM, 115V		
86007130	72128	SWITCH, DPDT 2-POSITION ROCKER		
86007140	72130	SWITCH, SPST 2-POSITION ROCKER		
86136800	73839	SCREEN, 80 MESH STRAINER DEEP		
86026480	84157	SOLENOID ASM		
86135340	14258	BRUSH SET, 120V 5.7 VAC AMETEK		
86135320	140687	BRUSH SET, 120V VAC WINDSOR	*	