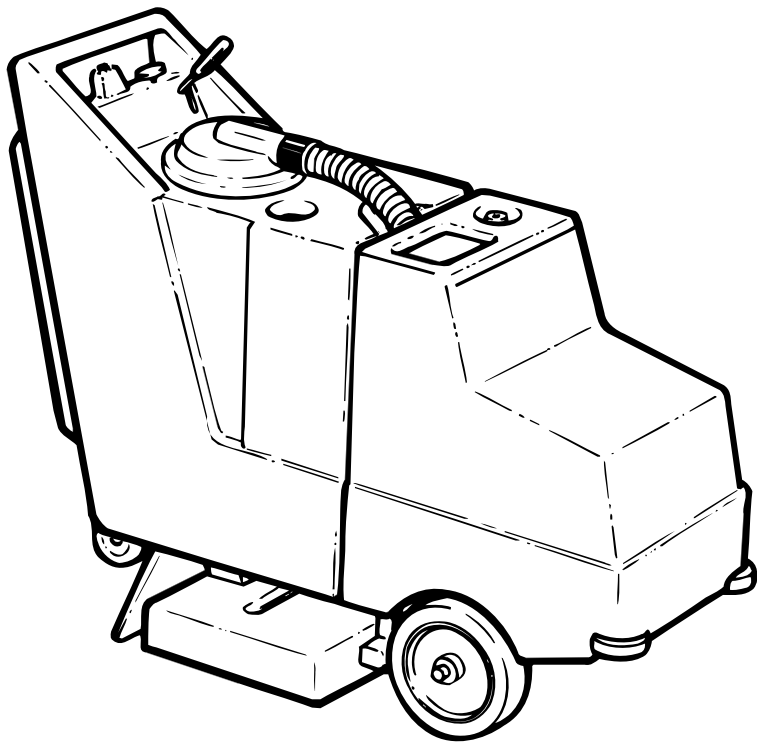


20-inch Automatic Carpet Extractor

Operator and Parts Manual



**604511
Rev. 02 (08-99)**

OPERATION

This manual is furnished with each new model. It provides necessary operation and maintenance instructions.

Read this manual completely and understand the machine before operating or servicing it.

When ordering replacement parts, use the Parts Lists in this manual. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. Parts and supplies may be ordered by phone or mail from any Authorized Service Center or Distributor.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly – per the maintenance instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.

MACHINE DATA

Please fill out at time of installation for future reference.

Model No.- _____

Install. Date - _____

Serial No.- _____

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SAFETY PRECAUTIONS

This machine is intended for commercial use. It is suited to clean carpets in an indoor environment and is not constructed for any other use. Use only recommended cleaning agents.

All operators must read, understand and practice the following safety precautions:

The following safety alert symbols are used throughout this manual as indicated in their description.

⚠ WARNING: To warn of hazards or unsafe practices which could result in severe personal injury or death.

FOR SAFETY: To identify actions which must be followed for safe operation of equipment.

The following information signals potentially dangerous conditions to the operator or equipment:

FOR SAFETY:

1. **Do not operate machine:**
 - Unless trained and authorized.
 - Unless operator manual is read and understood.
 - In flammable or explosive areas unless designed for use in those areas.
 - Unless cord is properly grounded.
 - With damaged cord or plug.
 - If not in proper operating condition.
 - In outdoor areas.
 - In standing water.
2. **Before operating machine:**
 - Make sure all safety devices are in place and operate properly.
3. **When using machine:**
 - Do not run machine over cord.
 - Do not pull machine by plug or cord.
 - Do not pull cord around sharp edges or corners.
 - Do not unplug by pulling on cord.
 - Do not stretch cord.
 - Do not handle plug with wet hands.
 - Keep cord away from heated surfaces.
 - Go slow on inclines and slippery surfaces.
 - Use care when reversing machine.
 - Always follow safety and traffic rules.
 - Report machine damage or faulty operation immediately.
 - Do not carry riders on machine.

4. **Before leaving or servicing machine:**
 - Stop on level surface.
 - Turn off machine.
 - Unplug cord from wall outlet.
5. **When servicing machine:**
 - Unplug cord from wall outlet.
 - Avoid moving parts. Do not wear loose jackets, shirts, or sleeves.
 - Block machine tires before jacking up.
 - Use hoist or jack of adequate capacity to lift machine.
 - Use manufacturer supplied or approved replacement parts.

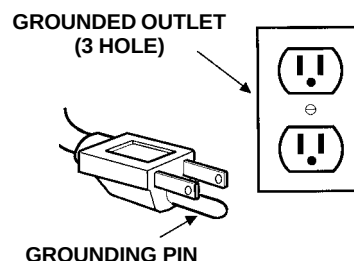
⚠ WARNING: Hazardous Voltage. Shock or electrocution can result. Unplug machine before servicing.

⚠ WARNING: Flammable materials can cause an explosion or fire. Do not use flammable materials in tank(s).

⚠ WARNING: Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.

GROUNDING INSTRUCTIONS

Machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use.



OPERATION

MACHINE INSTALLATION

1. Carefully check carton for signs of damage. Report damages at once to carrier. Check carton contents to ensure all parts are included.
2. To uncrate your machine, remove straps and raise brush head. Carefully lift or create a ramp using crate boards to remove machine from pallet.

ATTENTION: Do not roll machine off pallet, damage may occur.

MACHINE SETUP

1. Fill the solution tank with 66L (15 gal) of water, 60° C (140°F) maximum, and add recommended liquid cleaning agent to the proper dilution ratio (Figure 1).

NOTE: If filling with a bucket be certain that bucket is clean. This will prevent the chance of clogging the solution lines.



FIG. 1

ATTENTION: Do not mix powdered chemicals in the solution tank. Powders are unlikely to dissolve completely, resulting in clogging the solution pumping system.

ATTENTION: Use only recommended cleaning chemicals, DO NOT use substitutes. Consult an authorized distributor to assist you with the recommended cleaning chemicals.

⚠ WARNING: Flammable materials can cause an explosion or fire. Do not use flammable materials in tank(s).

2. Plug machine only into a grounded electrical outlet (Figure 2).

FOR SAFETY: Do not use machine unless properly grounded.

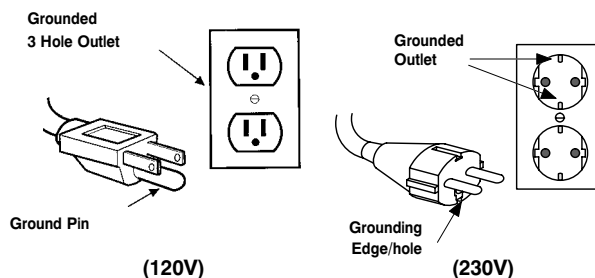


FIG. 2

3. Plug cord into machines pig tail cord and attach power cord to belt clip (Figure 3).



FIG. 3

MACHINE OPERATION

FOR SAFETY: Do not operate machine unless operator manual is read and understood.

NOTE: Prior to operation, vacuum the floor to remove particles and other debris.

1. Lower brush to carpet using the brush lift lever (Figure 4).



FIG. 4

- Turn on the MAIN, VACUUM and SPRAY switches (Figure 5).

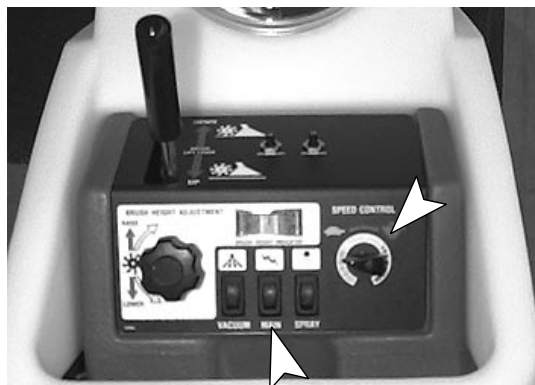


FIG. 5

- Rotate SPEED CONTROL knob counterclockwise to the stop position (Figure 5).
- Press the DRIVE button and gradually rotate the speed control forward until desired cleaning speed is achieved.
- Adjust to correct brush height. View Brush Height Indicator while operating, turn Brush Height Adjustment Knob until the indicator needle is positioned in the center of the meter (Figure 6).



FIG. 6

- Now the machine is ready for cleaning. The machine will move forward under its own power while spraying cleaning solution, agitating with brush, and vacuuming up both water and soil.

⚠ WARNING: Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.

- For heavily soiled areas adjust the SPEED CONTROL knob to a slower speed.

ATTENTION: If excessive foam builds up in the recovery tank, pour in a recommended anti-foam solution to prevent vacuum motor damage. This damage is not covered by warranty.

- To drive machine without cleaning: raise brush, turn off SPRAY and VACUUM switches and simply press the DRIVE button.

ACCESSORY TOOL OPERATION

Accessory tools are optional. Accessory tools enable you to reach areas that the machine is unable to.

To connect accessory tools:

- Disconnect vacuum hose from clear recovery dome and replace with attachment vacuum hose (Figure 7).



FIG. 7

- Connect solution hose to solution hose connector at front of machine (Figure 8).



FIG. 8

- Attach accessory tool to hoses.
- Turn on the MAIN and SPRAY switches.
- Operate accessory tool as normal (Figure 9).



FIG. 9

OPERATION

DRAINING MACHINE

Recovery tank must be emptied before refilling solution tank. To drain recovery tank perform the following steps:

1. Turn off all switches.
2. Unplug power cord from pigtail.
3. Raise brush and manually push machine to draining area.
4. Remove drain hose from holder and twist off drain hose plug (*Figure 10*).



FIG. 10

5. After draining, be certain that plug is on tight before continuing.

DRAINING UNUSED CLEANING SOLUTION

1. Position machine over floor drain.
2. Locate drain valve lever underneath machine.
3. Turn lever downward to drain (*Figure 11*).

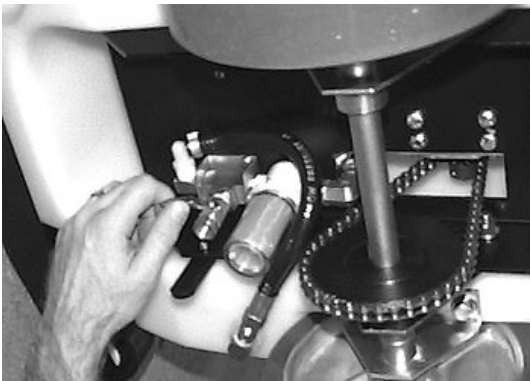


FIG. 11

MOTOR CIRCUIT BREAKERS

The machine is protected by circuit breakers to prevent the brush and drive motor from damage. Circuit breaker buttons are located at front of control console (*Figure 12*).



FIG. 12

Brush Reset Button

If brush seizes during operation the Brush Reset Button will automatically pop out. If this happens, unplug machine and determine why brush seized. You may need to raise the brush height or remove entangled fibers around the brush. Press the Brush Reset Button to reset.

Drive Reset Button

If the machine gets an excessive overload on the drive motor, the Drive Reset Button will automatically pop out and protect it from overheating. If this happens, let motor cool and reset the Drive Reset button.

MAINTENANCE

To keep machine in good working condition, perform the regularly recommended procedures:

FOR SAFETY: Before leaving or servicing machine, unplug power cord from wall outlet.

After Each Use

1. Flush tanks after every use.
2. Remove and clean standpipe screen (*Figure 13*).



FIG. 13

3. Remove any brush obstruction.
4. Clean machine housing with a nonabrasive, nonsolvent cleaner.

Solution Filter Maintenance

The solution filter must be cleaned regularly. A clean filter will prevent debris from clogging the solution pump, solenoid valve and spray tips.

The solution filter is located under solution tank at front of machine (*Figure 14*).

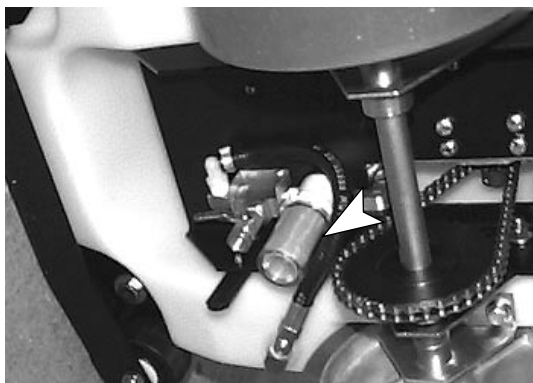


FIG. 14

To clean solution filter:

1. Empty solution tank of all water.
2. Unscrew clear filter bowl from machine.
3. Remove filters from bowl and rinse with water.
4. Reinstall filter, be certain that filters and bowl gasket are properly positioned.

Plumbing System Maintenance

Regularly flush out plumbing system with an acetic acid to remove alkaline buildup. This will prevent the plumbing system from clogging and reduce the chance of pump failure.

To flush out plumbing system:

1. Pour 9L (2 gal) of water with .5L (2 cups) of acetic acid into the solution tank.
2. Rotate speed control knob to the stop position.
3. Turn on MAIN and SPRAY switches.
4. Press the DRIVE button until solution begins to spray on floor.
5. Leave machine to sit for a few hours to allow acetic acid to breakdown buildup.
6. Later, operate machine to disperse remaining solution.
7. Then flush tank with clean water.

Drive Chain Maintenance

Chain is factory lubricated. However, if chain begins to show signs of rust, perform the following steps:

1. Unplug power cord at pigtail.
2. Empty tanks of all water.
3. Carefully stand machine on front end against wall.
4. Use a water resistant chain oil and lightly coat entire chain. Wipe up excess.
5. Let machine sit a while to allow oil to drip before use.

OPERATION

Adjusting Drive Chain

The drive chain should not be too tight or too loose. A properly adjusted chain should flex approximately 6.4mm (0.25 in). To tighten chain follow steps below:

- 1. Unplug cord at pigtail and empty tanks of all water.
- 2. Carefully stand machine on front end against wall.
- 3. Loosen (6) axle support screws with a 9/16 wrench.
- 4. Pull axle until chain flexes no more than 6.4mm (0.25 in) (Figure 14).

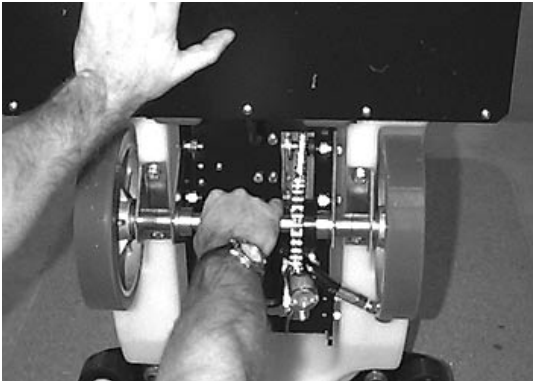


FIG. 15

- 5. Retighten screws, be certain that axle is parallel to frame before tightening screws.

STORING MACHINE

Store machine in a dry area in the upright position. Before storing machine be certain to flush tanks and drain machine of all water. Remove recovery lid to promote air circulation. Raise pad driver and squeegee off floor to prevent damage.

ATTENTION: If storing machine in freezing temperatures, be certain to drain machine of all water. Damage due to freezing temperatures is not covered by warranty.

RECOMMENDED STOCK ITEMS

Refer to Parts List section for recommended stock items. Stock Items are clearly identified with a bullet preceding the parts description. See example below:

Ref.	Part No.	Description	Qty.
1	701103	ASM.,STANDPIPE	1
2	180613	•FLOAT, SHUTOFF	1
3	230107	NIPPLE	1
4	101714	•GASKET	1
5	210240	NUT, FLANGED	1

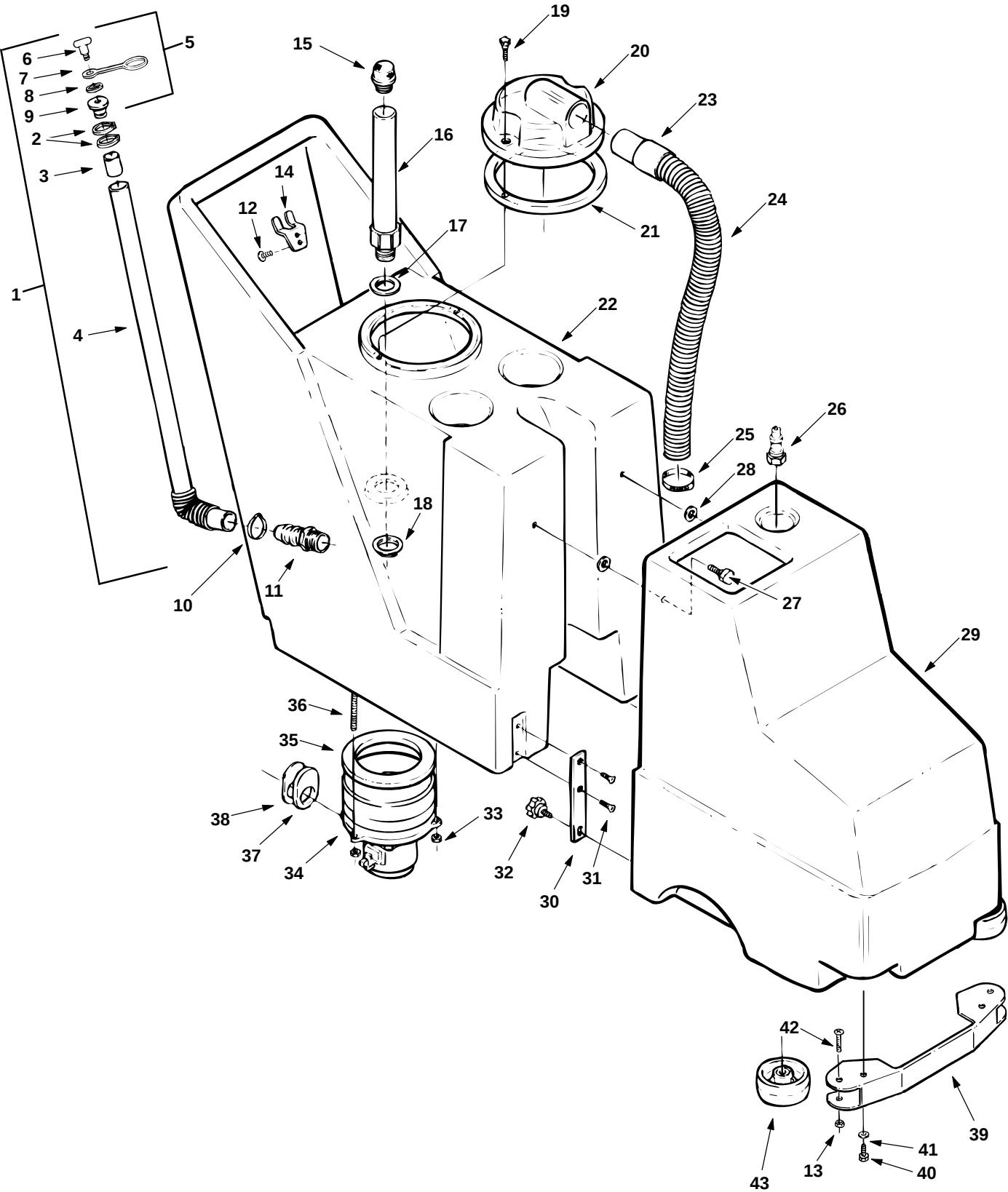
SPECIFICATIONS

MODEL	20-INCH AUTOMATIC CARPET EXTRACTOR
LENGTH	500 mm (20 in)
WIDTH	1270 mm (50 in)
HEIGHT	970 mm (38 in)
WEIGHT	66Kg (146lbs)
SOL. TANK CAPACITY	57L (15 gal)
REC. TANK CAPACITY	57L (15 gal)
FORWARD SPEED	VARIABLE
CLEANING PATH	500 mm (20 in)
BRUSH MOTOR	120V,.63A, 75.6W,.1HP,1800RPM 220V,.5A,120W,.2HP,1200RPM
DRIVE MOTOR	120V,.9A,108W, 240V,.5A,110W
VACUUM MOTOR	120V,9.9A,1192W,1.66HP 220V,4.5A,1042W 1.95HP
WATERLIFT	1170 mm (120 in)
POWER CORD LENGTH	22.8m (75 ft)
DECIBEL RATING AT OPERATOR'S EAR, INDOORS ON TILE.	75dB(A)

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Loss of vacuum.	Standpipe screen clogged.	Clean or replace screen.
	Drain plug loose or off.	Secure drain plug on hose.
	Leaking around recovery dome.	Replace recovery dome gasket.
	Holes in vacuum hose.	Replace hose.
	Vacuum hose loose or cuff loose.	Tighten cuffs or replace hose.
	Faulty vacuum switch.	Replace switch.
	Faulty vacuum motor.	Replace motor.
Drain hose leaks.	Drain hose worn.	Replace hose.
	Drain hose connection is loose.	Tighten drain hose connection.
Uneven or no spray from jets.	Solution filter clogged.	Clean or replace filter.
	Solution pump clogged or faulty.	Inspect pump for clogs or replace pump.
	Solenoid clogged or faulty.	Inspect solenoid for clogs or replace.
	Spray screens clogged.	Clean or replace spray screens.
	Spray jets worn or clogged.	Clean or replace spray jets.
Solution pump will not run.	Fuse blown or circuit breaker tripped in building wiring.	Replace fuse or reset breaker.
	Faulty pump switch or drive switch.	Replace switch.
	Loose wiring.	Find loose connection and repair.
	Solution pump motor faulty.	Replace solution pump.
Solution pump leaks.	Faulty seals in pump.	Replace pump seals.
Brush motor does not run.	User not pushing Drive button. Brush runs only when pushing Drive button.	Push Drive button.
	Main switch is switched off.	Activate Main switch.
	Brush circuit breaker is tripped.	Push Brush Reset button.
	Loose wiring.	Find loose connection and repair.
	Brush motor is faulty.	Replace brush motor.
Brush motor runs, but brush does not spin.	Loose or broken brush drive belt.	Replace brush drive belt.
	Loose set screws on brush drive motor pulley or brush pulley.	Tighten set screws.
Drive motor does not run.	User not pushing Drive switch. Drive motor only activates when pushing Drive switch.	Push Drive button.
	Speed control knob is turned counter-clockwise to the stop position.	Turn Speed Control knob clockwise.
	Main switch is switched off.	Activate Main switch.
	Drive motor circuit breaker is tripped.	Push Drive Motor Reset button.
	Faulty Drive switch.	Replace Drive switch.
	Loose wiring.	Find loose connection and repair.
	Faulty drive motor.	Replace Drive motor.
	Faulty speed control circuit.	Replace speed control circuit.

TANK ASSEMBLY



TANK ASSEMBLY

REF	PART #	DESCRIPTION	QTY.
▽1.	190965	●ASM., DRAIN HOSE	1
▲2.	140072	CLAMP	2
▲3.	140921	SLEEVE	1
▲4.	160627	HOSE, DRAIN	1
▽▲5.	701061	●DRAIN HOSE STOPPER	1
▲6.	230831	●KNOB	1
▲7.	230882	STRAP	1
▲8.	140056	WASHER, FENDER	1
▲9.	140955	PLUG	1
10.	140072	HOSE CLAMP, EAR 1 9/16	1
11.	150530	HOSE BARB, NYLON	1
12.	140825	SCREW, #6 X 1/2"	2
13.	140509	NUT, 1/2–13 JAM	2
14.	230696.BK	BRACKET, DRAIN HOSE CLIP	1
15.	180612	●SCREEN, STANDPIPE	1
16.	700142	STANDPIPE	1
17.	230159	O–RING, STANDPIPE	1
18.	210240	METAL NUT, 1 1/2"	1
19.	240193	●KNOB, VACUUM DOME	2
20.	100112	●VACUUM DOME	1
21.	100042	●GASKET, VACUUM DOME	1
22.	604544	TANK, RECOVERY, BLACK	1
	607252	TANK, RECOVERY, NAVY BLUE	1
23.	160430	HOSE CUFF, 1 1/2"	1
24.	160413	VACUUM HOSE W/CUFF	1

REF	PART #	DESCRIPTION	QTY.
25.	140307	CLAMP	1
26.	150933	●QUICK COUPLER PLUG	1
27.	240201	●KNOB	2
28.	100029	●GASKET, TANK CONNECTOR	2
29.	604542	TANK, SOLUTION, BLACK	1
	607251	TANK, SOLUTION, NAVY BLUE	1
30.	230372.BK	PLATE LOCK	2
31.	140833	SCREW, MACH	4
32.	240210	●KNOB, SOLUTION TANK	2
33.	140501	NUT, LOCK – NYLON INSERT 1/4"	3
34.	130416	●MOTOR, VAC 5.7 / 3 STG (120V)	1
	190160	●CARBON BRUSH (2/Pk)	2
35.	100118	●GASKET, VACUUM MOTOR	1
36.	140238	STUD, FULL THREAD 1/4–20 X 5	3
37.	100116	GASKET, EXHAUST OVAL	1
38.	230370	PLATE, EXHAUST GASKET, OVAL	1
39.	230333.BK	BRACKET, FRONT BUMPER	1
40.	140217	BOLT, 1/2–13 X 1/2	2
41.	140008	WASHER, FLAT, 1/2	2
42.	140236	BOLT, 1/2–13 X 2 1/2	2
43.	103037	WHEEL, BUMPER	2
N/S	701097	ASM., BRACE, RECOVERY TANK	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

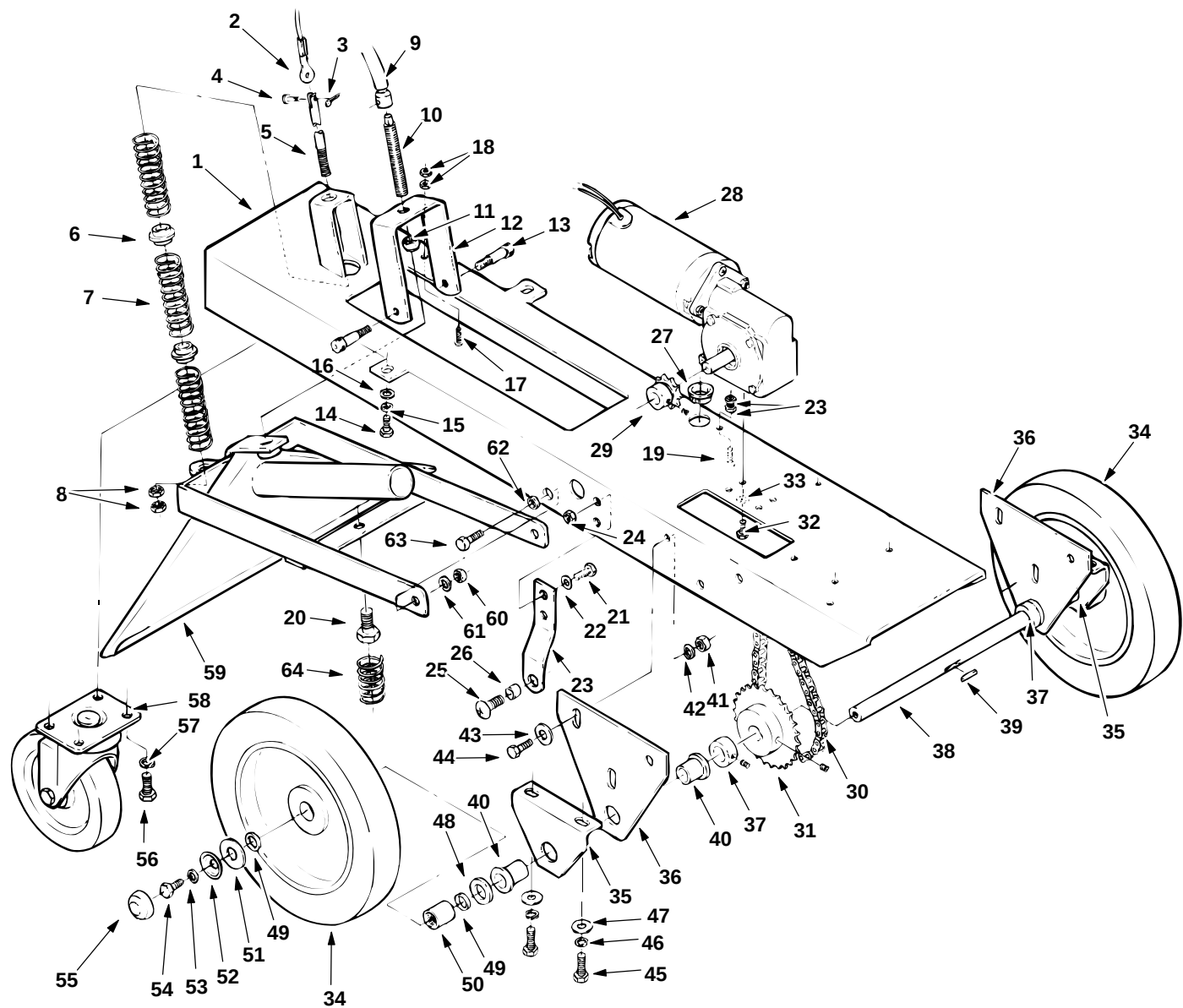
● RECOMMENDED STOCK ITEMS

N/S NOT SHOWN

DECAL LIST (NOT SHOWN)

REF	PART #	DESCRIPTION	QTY.
	120399	DO NOT ALLOW FOAM	1
	120906	IMPORTANT DRAIN	1
	120619	WARNING EXTRACTOR	1
	120655	DASH	1
	607081	"BLUESTAR"	1
	606065	"IDS"	1

CHASSIS ASSEMBLY



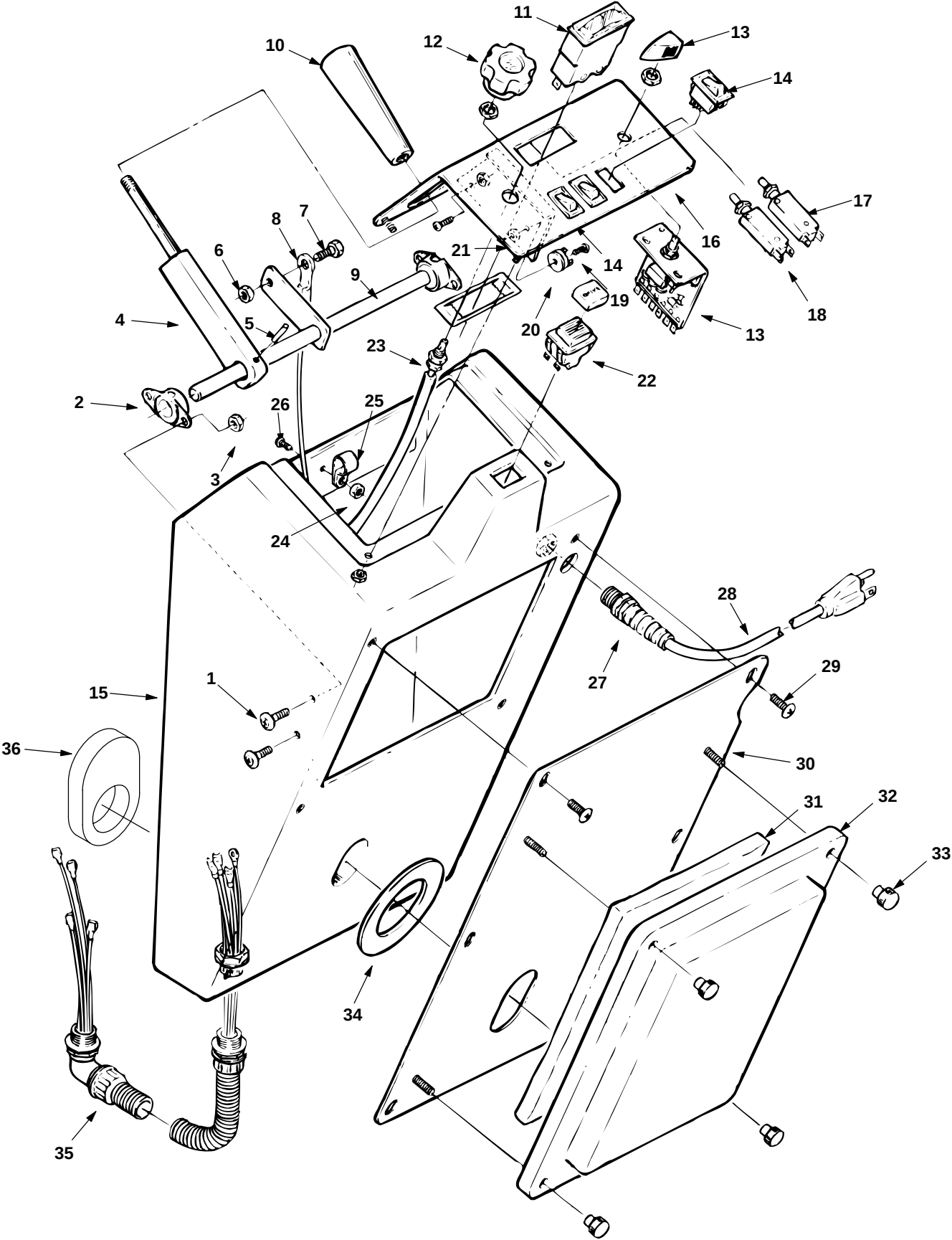
CHASSIS ASSEMBLY

REF	PART #	DESCRIPTION	QTY.
1.	230377.BK	CHASSIS	1
2.	140930	●CABLE, LIFT	1
3.	140630	PIN, COTTER	1
4.	140629	PIN, CLEVIS	1
5.	230359	VACUUM HEAD LIFT ROD	1
6.	230378	BUSHING, SPRING	2
7.	140441	SPRING, PRESSURE	3
8.	140545	NUT, 3/8-16	2
9.	240500	BRUSH HEIGHT CABLE ASSY.	1
10.	230364	STUD, BRUSH HEIGHT ADJUST.	1
11.	140515	NUT, NYLON LOCK 3/8-16	1
12.	230365.BK	BRACKET, BRUSH HGT ADJ.	1
13.	140564	BOLT, SHOULDER	2
14.	140223	SCREW, 5/16-18 X 3/4	2
15.	140015	WASHER, 5/16	2
16.	140027	WASHER, 5/16	2
17.	140804	SCREW, MACHINE 10/24 X 1	1
18.	140519	NUT, 10/24	2
19.	140804	SCREW, 10-24 X 1	1
20.	140237	SCREW, 1/2-13 X 1	1
21.	140223	SCREW, 5/16-18 X 3/4	2
22.	140027	WASHER, FLAT 5/16	2
23.	230381.BK	BRACKET, BRUSH	2
24.	140548	NUT, FINISHED JAM 5/16	2
25.	140898	SCREW, 3/8-16 X 3/4 NYLON PATCH	2
26.	140925	SPACER, CHASSIS 3/16 BRASS	2
27.	130104	BUSHING, SNAP .875 ID	1
28.	130475	●DRIVE MOTOR (120V)	1
29.	230352	SPROCKET, DRIVE MOTOR	1
30.	230354	●CHAIN, #35 BULK	2'
	230355	-LINK (NOT SHOWN)	1
	230356	-LINK, OFF-SET (NOT SHOWN)	1
31.	230353	SPROCKET, AXLE	1
32.	140553	SCREW, 1/4-20 X 1/2	4
33.	140016	WASHER, LOCK	4

REF	PART #	DESCRIPTION	QTY.
34.	700820	●LEFT DRIVE WHEEL	1
	700821	●RIGHT DRIVE WHEEL	1
35.	230374	PLATE, PIVOT	2
36.	230376	MOUNT PLATE, AXLE	2
37.	230351	COLLAR, 3/4" W/SCREW	2
38.	230358	AXLE	1
39.	140628	KEYSTOCK, 3/16 X 1	1
40.	140111	BEARING, FLANGE	4
41.	140525	NUT, 3/8-16	6
42.	140017	WASHER, 3/8	6
43.	140028	WASHER, FLAT 3/8	6
44.	140201	SCREW, 3/8-16 X 3/4	6
45.	140223	SCREW, 5/16-18 X 3/4	4
46.	140015	WASHER, 5/16	4
47.	140027	WASHER, 5/16	4
48.	140049	WASHER, WHEEL	2
49.	140115	●BEARING SEAL (special tools req'd.)	4
50.	140110	●BEARING (special tools req'd.)	2
51.	140047	WASHER, 1.246OD X .754ID X .062	2
52.	140048	WASHER, 5/16 (FOR 150210)	2
53.	140015	WASHER, SPLIT LOCK 5/16	2
54.	140559	SCREW, 5/16-18 X 1/2	2
55.	150210	HUBCAP, BLACK	2
56.	140223	SCREW, 5/16-18X 3/4	4
57.	140015	WASHER, SPLIT LOCK 5/16	4
58.	103035	CASTER, 5" SWIVEL	1
59.	230375.BK	VACUUM HEAD ASSEMBLY	1
60.	140525	NUT, 3/8-16	2
61.	140017	WASHER, SPLIT LOCK 3/8"	2
62.	140925	SPACER, CHASSIS 3/16	2
63.	140201	SCREW, 3/8-16 X 3/4	2
	140136	-BUSHING (NOT SHOWN)	2
	140028	-WASHER (NOT SHOWN)	2
64.	140403	SPRING, BRUSH PRESSURE	1

●RECOMMENDED STOCK ITEMS

CONTROL CONSOLE



CONTROL CONSOLE

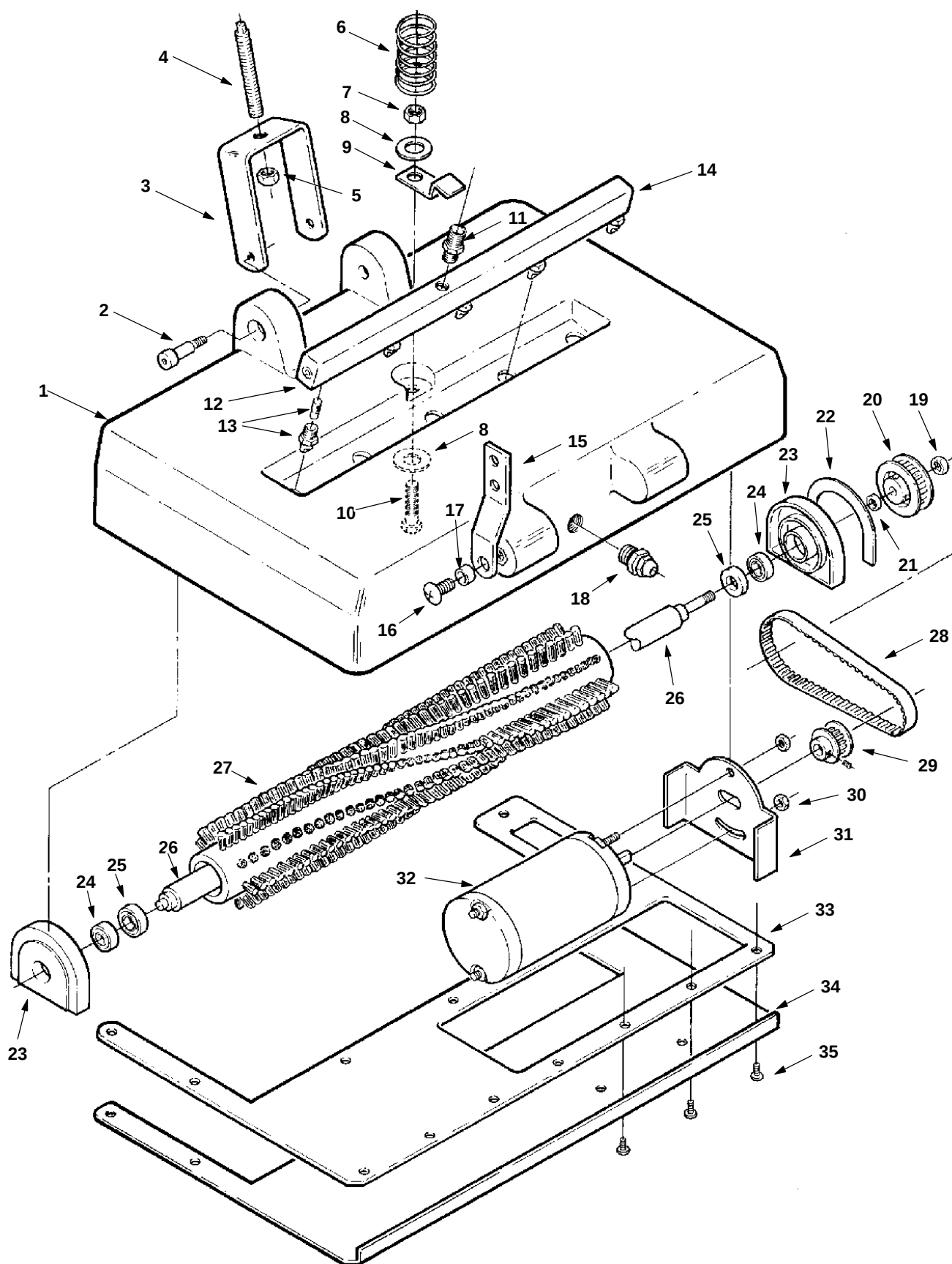
REF	PART #	DESCRIPTION	QTY.
1.	140864	SCREW, 1/4-20 X 3/4	4
2.	140102	BEARING FLANGE	2
3.	140524	NUT, KEP 1/4-20	4
4.	230360	LIFT LEVER	1
5.	140631	PIN, ROLL 7/32 X 1	1
6.	140524	NUT, KEP	1
7.	140554	SCREW, 1/4-20 X 3/4	1
8.	140930	CABLE, LIFT	1
9.	230361	PIVOT BAR ASSEMBLY	1
10.	27185	●KNOB	1
	27252	L-CAP	1
11.	130019	●METER, AMP	1
12.	240208	●BRUSH HEIGHT KNOB	1
13.	130012	●CONTROL BOARD	1
14.	130717	●SWITCH, ROCKER TYPE	3
15.	604540	HOUSING, CONTROL, BLACK	1
	607249	HOUSING, CONTROL, NAVY BLUE	1
16.	250556	CONTROL PANEL ONLY	1
17.	130746	●BREAKER, CIRCUIT 2.5 AMP	1
18.	578337000	●BREAKER, CIRCUIT 1.5 AMP	1
19.	140831	SCREW, MACHINE 6/32 X 5/8	1

REF	PART #	DESCRIPTION	QTY.
20.	130304	●RECTIFIER, BRUSH MOTOR	1
21.	140539	NUT, 6/32	1
22.	130821	●DRIVE SWITCH	1
23.	240500	CABLE, BRUSH HEIGHT ADJUST	1
24.	140519	NUT, 10-24	1
25.	140916	CLAMP, NYLON	1
26.	140891	SCREW, 10-24 X 5/8	1
27.	130166	CORD GRIP	1
28.	130228	CORD, 14/3X34" YLW (120V)	1
N/S	130229	CORD, 14/3X75' YLW (120V)	1
29.	140885	SCREW, MACHINE 1/4-20 X 1/2	6
30.	230369.BK	COVER PLATE	1
31.	102540	SOUND FILTER FOAM	1
32.	604546	FILTER COVER, BLACK	1
	607255	FILTER COVER, NAVY BLUE	1
33.	240209	●KNOB	4
34.	100117	GASKET, EXHAUST	1
35.	130960	HARNESS, WIRE	1
36.	100116	GASKET, EXHAUST-OVAL	1
N/S	100068	TAPE, BUMPER 1/16 X 1 (11 IN.)	2
N/S	100068	TAPE, BUMPER 1/16 X 1 (7 IN.)	2

● RECOMMENDED STOCK ITEMS

N/S NOT SHOWN

20-inch Automatic Carpet Extractor (07-98)



POWER BRUSH ASSEMBLY

REF	PART #	DESCRIPTION	QTY.
1.	604538	HOUSING, BASE, BLACK	1
	607247	HOUSING, BASE, NAVY BLUE	1
2.	140564	BOLT, SHOULDER	2
3.	230365.BK	BRACKET, BRUSH HGT ADJ.	1
4.	230364	●STUD, BRUSH HGT ADJ.	1
5.	140515	NUT, LOCK-NYLON INSERT 3/8-16	1
6.	140403	SPRING, BRUSH PRESSURE	1
7.	140515	NUT, LOCK NYLON	1
8.	140021	WASHER, FLAT 7/16 USS S/S	2
9.	250466	CLAMP, SPRAYBAR MANIFOLD, BLK	1
10.	140231	SCREW, 3/8-16 X 1 1/2	1
11.	150614	REDUCER, BRASS, 1/4M X 1/8M	1
12.	150208	PLUG, BRASS HEX HEAD	1
13.	201011	●NOZZLE	5
14.	701049	ASM SPRAYBAR W/TWIST JETS	1
	230379	●MANIFOLD, SPRAYBAR	1
15.	230381.BK	BRACKET, BRUSH ASSY.	2
16.	140898	SCREW, MACH.	2
17.	140925	SPACER, CHASSIS 3/16 BRASS	2
18.	130190	●GRIP, CORD	1

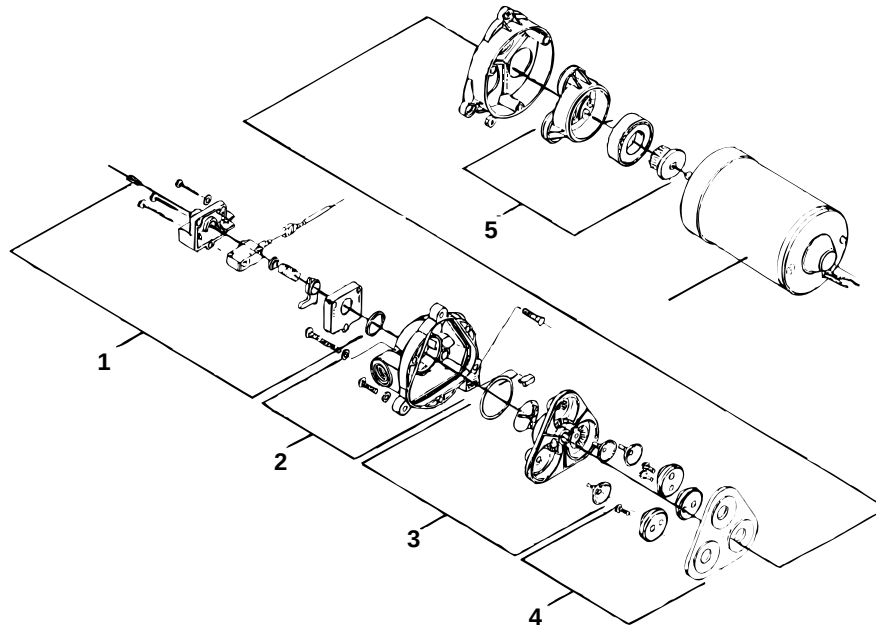
REF	PART #	DESCRIPTION	QTY.
▽	700094	BRUSH ASSEMBLY COMPLETE	1
▲19.	140548	NUT, FINISHED JAM 5/16	1
▲20.	230505	●PULLEY, BRUSH W/SCREWS	1
▲21.	230363	SPACER, .625OD X .328ID X .125	1
▲22.	100005	●GASKET, BEARING BLOCK	1
▲23.	230261	●BEARING BLOCK	2
▲24.	140125	●BEARING	2
▲25.	100049	●BEARING SEAL	2
▲26.	230362	SHAFT, BRUSH	1
▲27.	240050	BRUSH ONLY	1
28.	230507	●TIMING BELT	1
29.	230506	●PULLEY, MOTOR W/SCREW	1
30.	140518	NUT, 10-32	1
31.	230366	PLATE, MOTOR MOUNT	1
32.	130471	●BRUSH DRIVE MOTOR (120V)	1
33.	100115	GASKET, BASE PLATE	1
34.	230367.BK	PLATE, BRUSH BASE	1
35.	140887	SCREW, 10-24 X 3/8	12

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

PUMP BREAKDOWN



REF	PART #	DESCRIPTION	QTY.
▽	180103	●PUMP, 100 PSI 120V (COMPLETE)	1
▲1.	190129	●KIT, PRESSURE SWITCH	1
	190172	●KIT, PRESSURE SWITCH (VITON)	1
	190134	●KIT, DIAPHRAGM ONLY	1
	190128	●KIT, UPPER PUMP HOUSING	1
▲2.	190128	●KIT, UPPER PUMP HOUSING	1
	190124	●KIT, CHECK VALVE ONLY	1

REF	PART #	DESCRIPTION	QTY.
▲3.	190171	●KIT, VALVE (VITON)	1
▲4.	190131	●KIT, SERVICE	1
▲5.	190130	●KIT, LOWER PUMP HOUSING	1

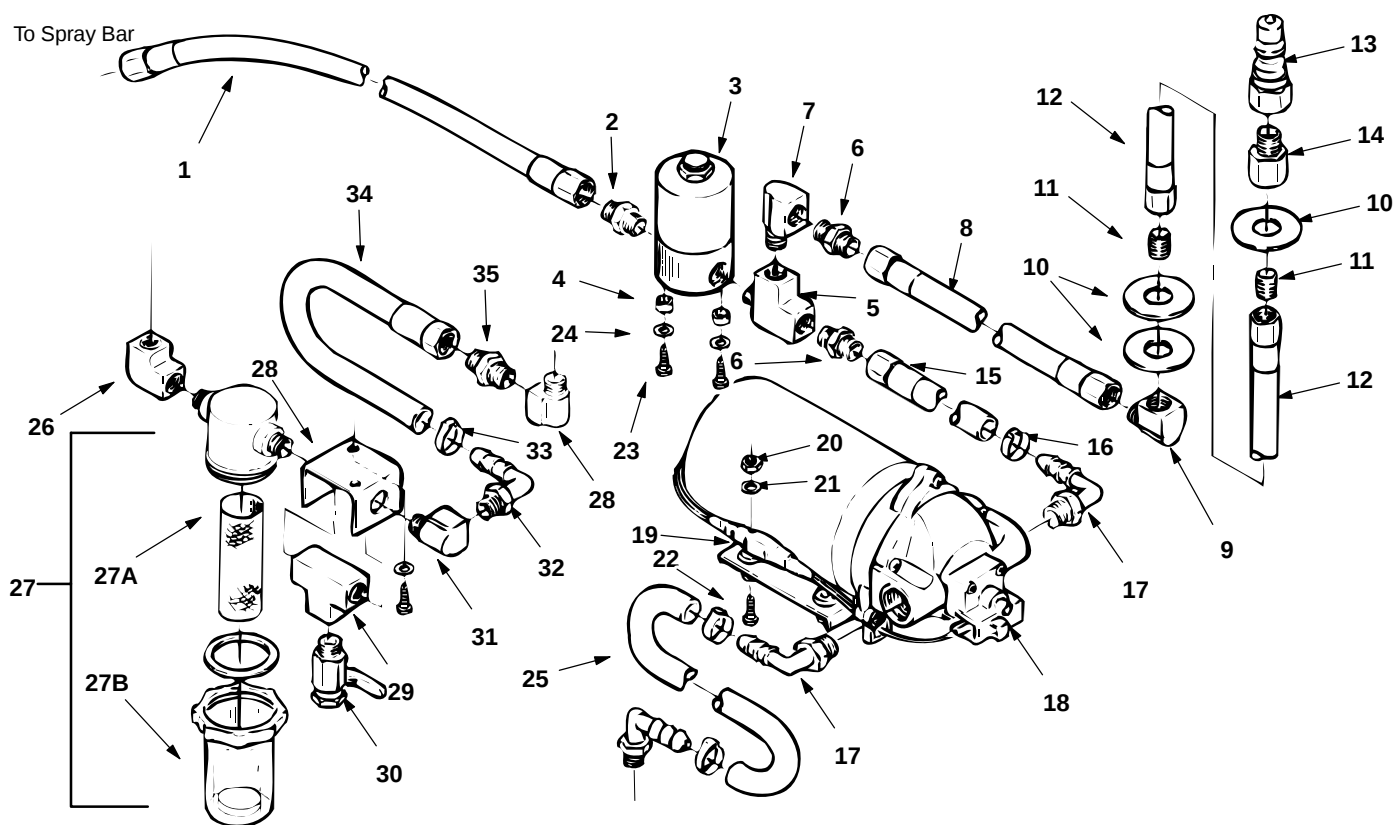
▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

PARTS LIST

PUMP ASSEMBLY



REF	PART #	DESCRIPTION	QTY.
∇1.	700813	ASM., HOSE	1
▲	160207	HOSE, 3/8 GRAY	1.4'
▲	160300	-SLEEVE	2
▲	150512	-HOSE BARB	2
2.	150606	NIPPLE	1
3.	210032	●SOLENOID	1
4.	140922	SPACER	2
5.	150709	TEE, 1/4" STREET	1
6.	150606	NIPPLE, 1/4"	2
7.	150406	ELBOW, 1/4" STREET 90 DEG.	1
∇8.	700810	ASM., HOSE	1
▲	160207	HOSE, 3/8 GRAY	1.2'
▲	160300	-SLEEVE	2
▲	150512	-HOSE BARB	2
9.	150406	ELBOW, 1/4" STREET 90°	1
10.	140008	WASHER, FLAT 1/2	3
11.	150615	NIPPLE, BRASS CLOSE 1/4 PIPE	1
12.	700769	HOSE, ACCESSORY	1
13.	150933	●QUICK DISCONNECT PLUG	1
14.	150000	ADAPTER, 1/4M X 1/4F	1
∇15.	700812	ASM., HOSE	1
▲	160207	HOSE, 3/8 GRAY	.46'
▲	160300	-SLEEVE	2
▲	150512	-HOSE BARB	2

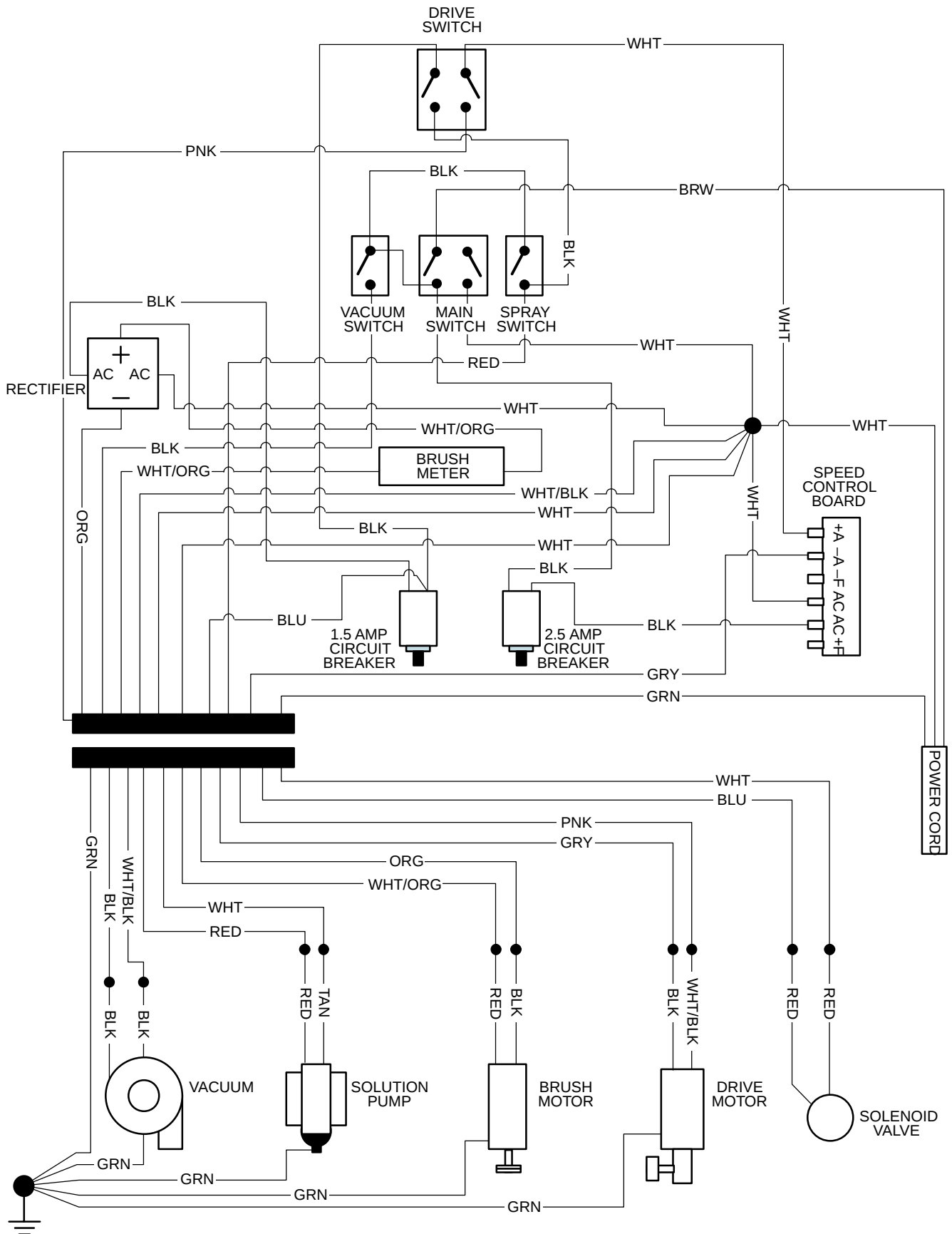
REF	PART #	DESCRIPTION	QTY.
16.	140301	CLAMP	3
17.	150415	ELBOW, 90° NYLON, 1/4"M X 3/8"H	3
18.	180103	●SOLUTION PUMP (120V)	1
19.	190138	●KIT, RECTIFIER	1
20.	140519	NUT, 10-24	2
21.	140012	WASHER, FLAT 3/16	2
22.	140804	SCREW, 10-24 X 1	2
23.	140841	SCREW, MACH. 10-32 X 5/8	2
24.	140018	WASHER, INTERNAL LOCK TOOTH	2
25.	160207	HOSE, 3/8 GRAY	.54'
26.	150401	ELBOW, 90°	1
27.	180619	ASM, INLINE FILTER	1
27A.	180632	-STRAINER	1
27B.	180631	-GASKET	1
28.	230373	BRACKET, FILTER	1
29.	150706	TEE, BRASS	1
30.	210006	SOLUTION TANK DRAIN VALVE	1
31.	150406	ELBOW, 90°	2
32.	150415	ELBOW, 90° NYLON, 1/4"M X 3/8"H	1
33.	140301	CLAMP	1
34.	700811	HOSE, FILTER VALVE	1
35.	150606	NIPPLE, BRASS 1/4"	1

∇ ASSEMBLY

● RECOMMENDED STOCK ITEMS

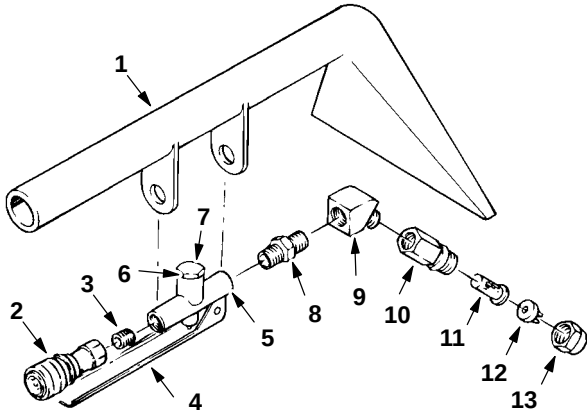
▲ INCLUDED IN ASSEMBLY

120V WIRING DIAGRAM



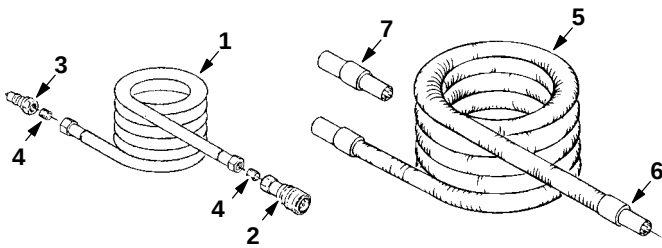
OPTIONS

127 mm (5 inch) HAND TOOL



REF	PART #	DESCRIPTION	QTY.
	200505	TOOL, HAND (COMPLETE)	1
1	200431.BK	TOOL, HAND	1
2	150913	COUPLER, QUICK (SER. 60)	1
3	150615	NIPPLE, CLOSE	1
4	200905	TRIGGER, HAND TOOL	1
5	210210	VALVE, FLOW CONTROL	1
6	190600	VALVE PIN & SPRING (NOT SHOWN)	1
7	N/A	CAP, VALVE	1
8	150606	NIPPLE, HEX 1/4	1
9	150403	ELBOW, ST 1/4 45°	1
10	200992	BODY, SPRAY 1/4F	1
11	200996	SCREEN, SPRAY NOZZLE	1
12	200965	TIP, SPRAY #8002	1
13	200994	CAP, SPRAY BODY	1

SOLUTION AND VACUUM HOSES

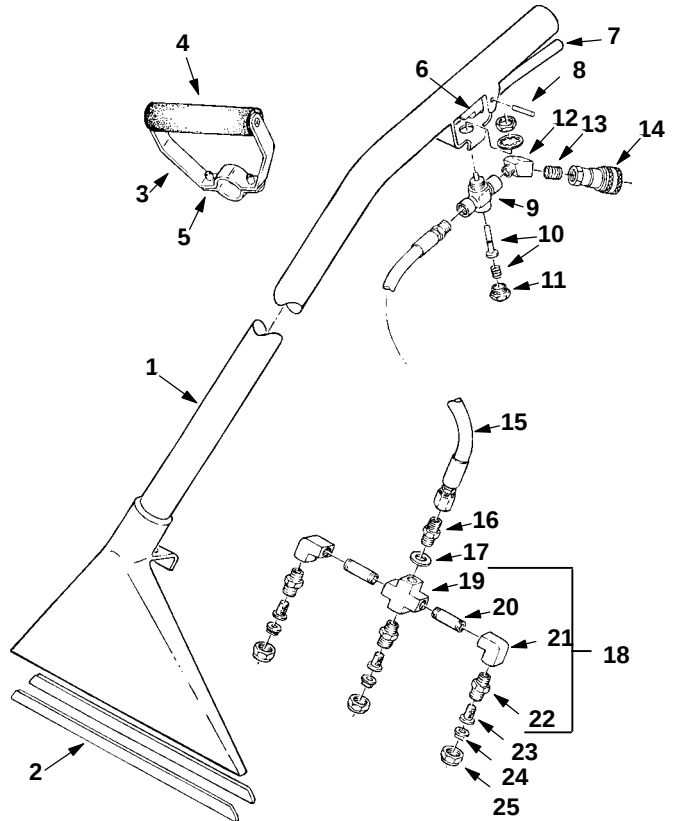


REF	PART #	DESCRIPTION	QTY.
▽1	160185	HOSE, SOLUTION 15'	1
	160186	HOSE, SOLUTION 25'	1
▲2	150913	COUPLER, QUICK SER. 60	1
▲3	150933	PLUG, QUICK COUPLER	1
▲4	150615	NIPPLE	2
▽5	160400	HOSE, VACUUM 15' W/ CUFFS	1
	160401	HOSE, VACUUM 25' W/ CUFFS	1
▲6	160430	CUFF, HOSE 1-1/2"	2
7	160451	CONNECTOR, VACUUM HOSE 1-1/2"	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

FLOOR TOOL



REF	PART #	DESCRIPTION	QTY.
	600048	FLOOR TOOL (COMPLETE)	1
1	200403.BK	TOOL, FLOOR	1
2	200939	SHOES, S/S, FLOOR TOOL	2
3	200927	GRIP, ADJUSTABLE (COMPLETE)	1
4	200912	FOAM, GRIP	1
5	140259	SCREW, 1/4-20X5/8	1
6	200902	TRIGGER, FLOOR TOOL	1
7	200809	SLEEVE, TRIGGER	1
8	140605	PIN	1
	140520	NUT, PUSH (NOT SHOWN)	2
9	210150	VALVE, FLOW CONTROL	1
10	190603	KIT, VALVE PIN & SPRING	1
11	N/A	CAP, HEX, VALVE	1
12	150403	ELBOW, 1/4-45°	1
13	150615	NIPPLE, CLOSE 1/4	1
14	150913	COUPLER, QUICK SER. 60	1
15	160170	HOSE, SOLUTION, LP	1
16	150606	NIPPLE, HEX 1/4"	1
17	140058	WASHER	1
▽18	700062	ASM., SPRAY BAR	1
▲19	150700	CROSS	1
▲20	150600	NIPPLE	2
▲21	150401	ELBOW, 90° 1/4FX1/4F	2
▲22	200993	SPRAY BODY	3
23	200996	SCREEN, SPRAY BODY	3
24	200964	TIP	3
25	200994	CAP, SPRAY BODY	3