

# Castex®

# Falcon 2800

AUTOMATIC CARPET EXTRACTOR

MODEL: WF2800

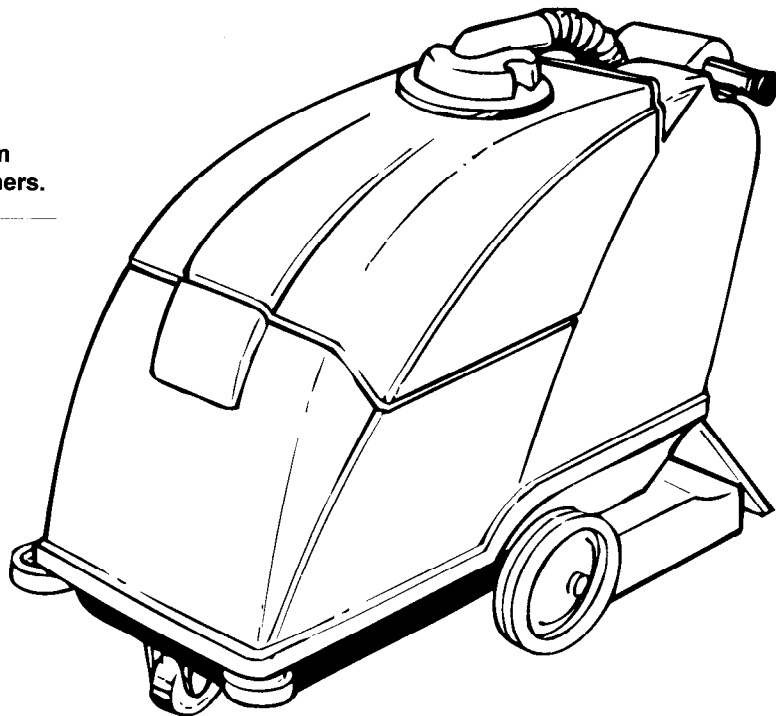
Operator & Parts Manual

Starting Serial No.: WF280 3891 SJO

Record Serial No. Here: \_\_\_\_\_



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Michigan Company Inc.  
2011 N. High St.  
Lansing, Mich. 48906  
(517) 484-9312  
<http://www.Michco.Com>  
Email: [Shop@Michco.Com](mailto:Shop@Michco.Com)  
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**CASTEX INCORPORATED**  
12875 RANSOM STREET  
HOLLAND MI 49424

A  COMPANY

1-800-522-7839  
616-786-2330  
FAX: 1-800-678-4240  
CUSTOMER SERVICE: 1-800-365-6625

173135  
Rev. 04 (09-96)

**ATTENTION:** Do not operate machine unless manual is read and understood.

**IMPORTANT:** Follow maintenance procedures in manual to keep machine in good working condition.

When servicing machine use only manufacturer supplied or approved parts.

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## **TABLE OF CONTENTS:**

### **SET-UP AND OPERATION**

INSTALLATION.....	1
TRANSPORTING EXTRACTOR .....	1
FILLING SOLUTION TANK .....	1
ADJUSTING CONTROL GRIP HEIGHT .....	1
CONNECTING TO POWER SOURCE .....	2
ADJUSTING BRUSH HEIGHT .....	2
PRESPRAY WHILE CLEANING .....	2
CLEANING CARPET .....	3
CIRCUIT BREAKERS .....	3
CLEANING UPHOLSTERY .....	3
DRAINING RECOVERY TANK .....	4

### **MAINTENANCE**

AFTER EACH USE .....	5
EVERY FORTY HOURS OF OPERATION .....	5
ONCE EACH MONTH .....	5
EVERY 100 HOURS OF OPERATION .....	5
ADJUSTING DRIVE BELT .....	5
EVERY 250 HOURS OF OPERATION .....	5

### **TROUBLE SHOOTING..... 6**

### **ELECTRICAL INFORMATION**

WIRING DIAGRAM .....	8
LADDER DIAGRAM .....	10

### **MACHINE PARTS LIST**

CHASSIS PARTS .....	12
UPPER HOUSING PARTS.....	14
CONTROL HOUSING PARTS .....	16
BRUSH HOUSING PARTS .....	17
PUMP PARTS .....	18
DECAL PARTS LIST .....	18

### **OPTIONAL ACCESSORIES PARTS LIST**

5" HAND TOOL .....	19
FLOOR TOOL .....	19
HOSES .....	19

## SET UP AND OPERATION:

### INSTALLATION:

**⚠ CAUTION:** To prevent damage to extractor when uncrating, DO NOT attempt to drive or roll off skid. Carefully lift extractor off skid using two people.

Your new extractor requires very little set-up.

1. Place recovery dome on top of solution tank and secure with two thumbscrews.
2. Insert black vacuum hose into dome opening.
3. Install spray wand into opening on the right side of the tank, next to the control housing. (Figure 1)

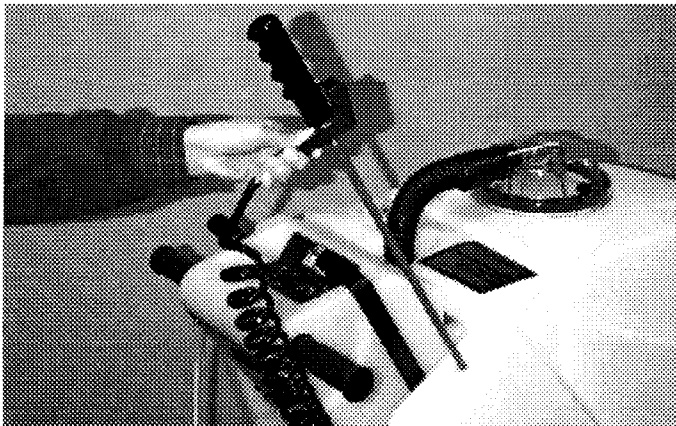


Fig. 1

### TRANSPORTING EXTRACTOR

Your extractor will glide easily across the floor by pushing machine forward (without power). To pull machine backwards, you simply pull reverse release lever backwards (arrow **A**) and to the right to latch (arrow **B**). This will allow you to easily pull the machine backwards. Be certain brush is raised before transporting. To raise brush, pull brush lever backwards (arrow **C**) until it latches. (Figure 2)

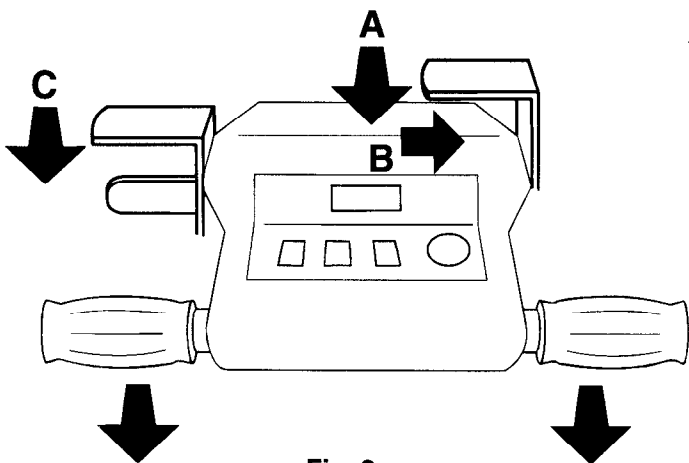


Fig. 2

### FILLING SOLUTION TANK:

Open filler door at front of extractor and fill with 28 gallons, (106 liters) of hot water (140°F, 60°C maximum) and add liquid cleaning solution to proper dilution ratio. (Figure 3)

**⚠ CAUTION:** Avoid use of powdered carpet cleaning chemicals. If they do not dissolve completely spray jets can become plugged. If you do use powders, always pre-mix them in a bucket until they are completely dissolved before pouring into the extractor's solution tank.

**⚠ CAUTION:** Use separate buckets to fill and empty extractor. Fill from a hose or use a clean bucket to fill solution tank and empty dirty water into a separate bucket. Dirty water in solution tank will clog solution pump system.

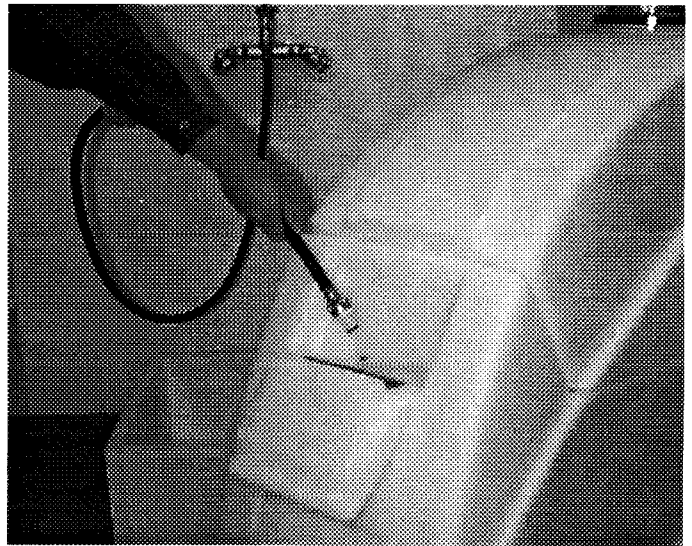


Fig. 3

### ADJUSTING CONTROL GRIP HEIGHT:

Adjust control grip to a comfortable operating height (three settings). Squeeze two levers under console together to raise or lower control grip. (Figure 4)



Fig. 4

## CONNECTING TO POWER SOURCE:

**⚠ WARNING:** To avoid serious personal injury: Plug into grounded outlets only. Do not use an adapter or remove ground pin on plug. Do not use if cord is damaged.

1. Connect extension cord to short pigtail cord on extractor. (All 220V Models plug directly into wall outlet.)
2. Plug extension cord into a grounded (earthed) power outlet. (Figure 5)
3. Attach belt clip to power cord and to your belt. (Figure 6)

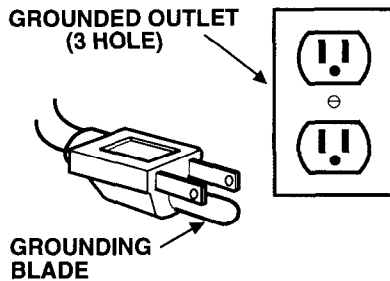


Fig. 5

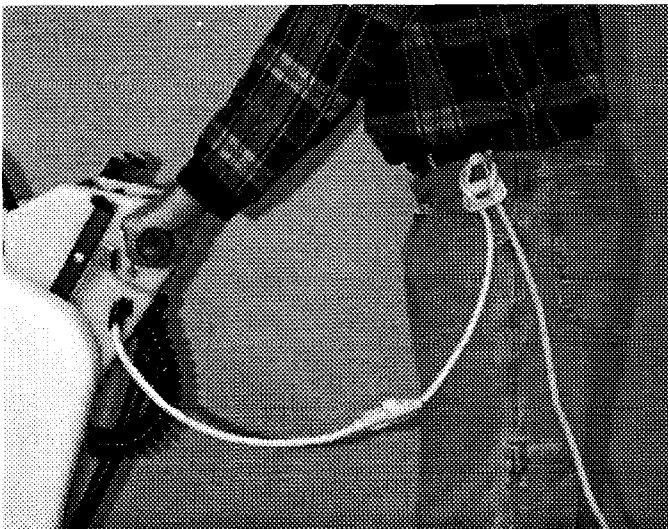


Fig. 6

## ADJUSTING BRUSH HEIGHT:

1. Lower brush: Pull back on lever and depress thumb latch then move lever forward to lower. (Figure 7)
2. Rotate SPEED CONTROL KNOB to slowest setting.
3. Turn on "MAIN" switch.
4. Roll control grips forward and hold them.
5. Read BRUSH HEIGHT METER and rotate brush height knob until BRUSH HEIGHT METER reads in the "BEST CLEANING RESULTS" range. (Figure 8)



Fig. 7

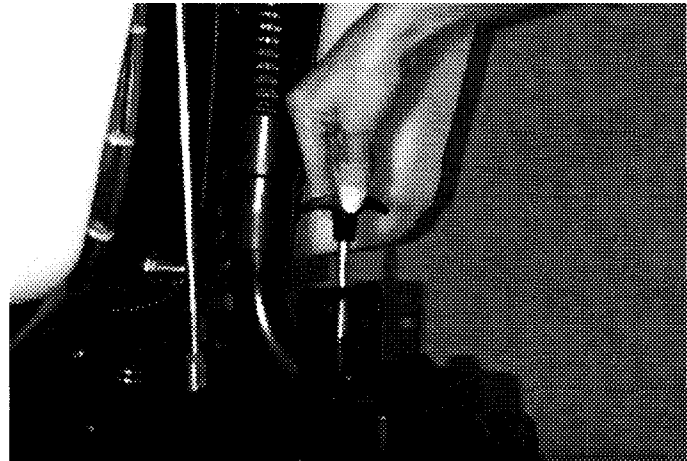


Fig. 8

## PRESPRAY WHILE CLEANING:

While cleaning, prespray traffic areas and spots using built-in spray wand. To activate wand, turn on "MAIN" and "PUMP" switches. Remove wand from holder, unlock trigger and spray where needed. (Figure 9)



Fig. 9

## CLEANING CARPET:

**⚠ WARNING:** To avoid serious personal injury: Do not use if cord is damaged. Disconnect power before servicing. Electrical service must be performed by an authorized service station or electrician. Use only nonflammable commercial chemicals intended for machine application. Do not use where explosive vapors or dust are present in the air. Disconnect power if machine is left unattended. Do not allow machine to freeze. Do not expose to rain. Store indoors.

1. Turn on "MAIN" switch.
2. Turn on "VACUUM" switch.
3. Lower brush by depressing thumb latch on brush lever. (Figure 10)



Fig. 10

4. Turn on "PUMP" switch. Pump and brush will both start once control grips are rolled forward.
5. To start drive motor, twist roll grips forward and rotate "SPEED CONTROL KNOB" to desired speed. For heavily soiled carpet, operate at slower speeds. For light, or interim cleaning you can operate at faster speeds. (Figure 11)



Fig. 11

6. Turn "PUMP" switch off just before turning or stopping. This vacuums up extra water.

7. While cleaning, watch level of foam build-up in recovery tank. If foam builds, pour a quality defoamer chemical into recovery tank.

**⚠ CAUTION:** Do Not allow foam to enter shut-off float. Foam will not shut off "shut off float". Foam will damage vacuum motor and this damage is NOT COVERED BY WARRANTY.

8. To check remaining cleaning solution in solution tank when cleaning, look at clear gallon marker hose at rear of extractor. Each mark on clear hose equals 5 gal. (22 L) of solution. (Figure 12)

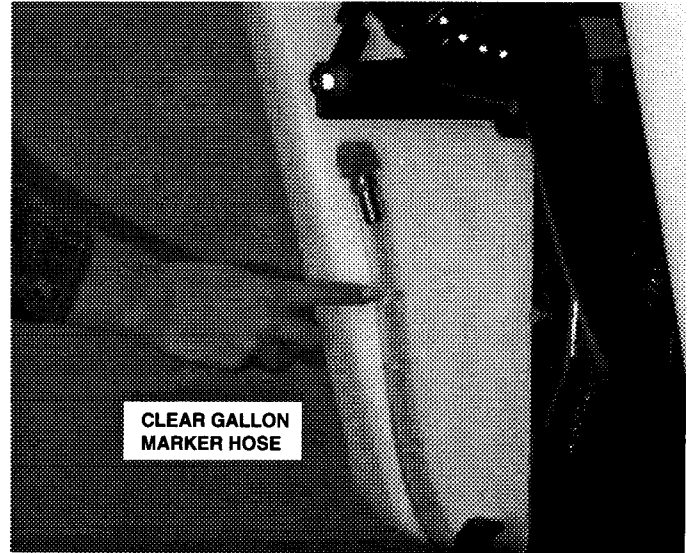


Fig. 12

## CIRCUIT BREAKERS:

There are two circuit breakers. These breakers are located on control housing, at rear of extractor.

1. Brush motor is protected by a 1.5 amp circuit breaker. If breaker trips, brush is probably clogged with lint or debris. Remove any clogging debris in brush.
2. Drive motor is protected by a 2.5 amp circuit breaker. If breaker trips, it indicates that drive motor has been overstressed or that there is an electrical short.

## CLEANING UPHOLSTERY:

Extractor cleans most synthetic upholstery very well. Fabrics like Herculon and synthetic velvets will clean with excellent results. *Extraction is not recommended for most cottons, silks, wools or natural fiber velvets.* Check cleaning instructions sewn on furniture by manufacturer for further instructions. Use extra caution with furniture that has been reupholstered. Any material under new upholstery may bleed and discolor new fabric.

1. Vacuum fabric before cleaning.
2. TEST FABRIC FOR COLORFASTNESS. Pour a small

amount of cleaning solution on a white cloth. Hold cloth against an area of upholstery which is hidden from view for 60 seconds. If no color transfers to cloth, it should be safe to clean. However, always clean at your own discretion.

3. Disconnect vacuum hose from recovery dome and replace with (optional) extension vacuum hose. Connect (optional) solution hose to quick disconnect located on top of tank. Then connect (optional) accessory tool to hoses. (Figure 13)
4. Turn on "MAIN", "VACUUM" and "PUMP" switches.
5. Squeeze trigger on accessory tool and pull tool backwards. (Figure 14)
6. Overlap strokes to avoid streaking. Use as little cleaning solution as possible. AVOID GETTING UPHOLSTERY TOO WET.

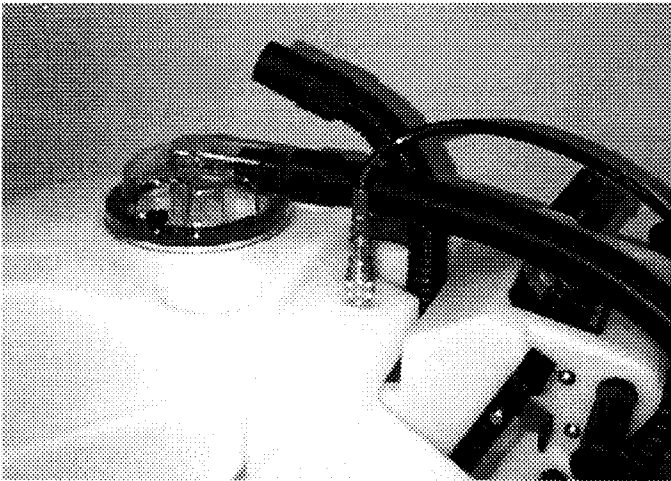


Fig. 13



Fig. 14

#### **DRAINING RECOVERY TANK:**

1. Drain recovery tank when solution tank is empty. Take extractor to a drain sink or floor drain and unhook drain hose from rear of machine. Unscrew T-handle from drain hose and let dirty water drain. (Figure 15)

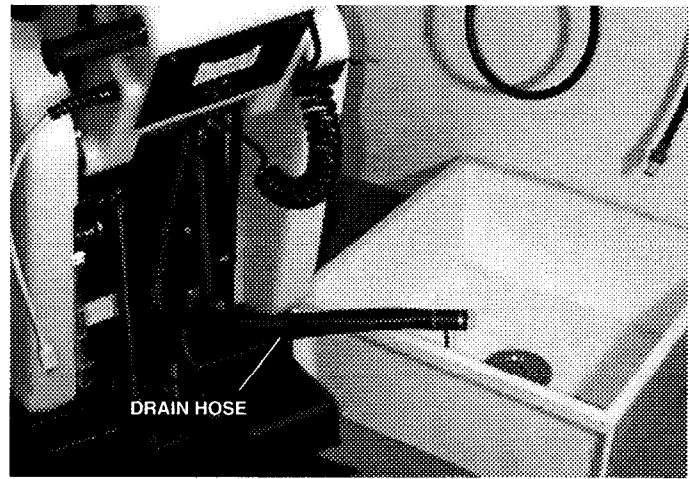


Fig. 15

2. If there is leftover cleaning solution in solution tank, drain excess solution or use it to rinse out recovery tank.
  - a. To drain leftover cleaning solution, place extractor over a drain sink or floor drain, pull clear gallon marker hose off hose barb and drain. (Figure 16)

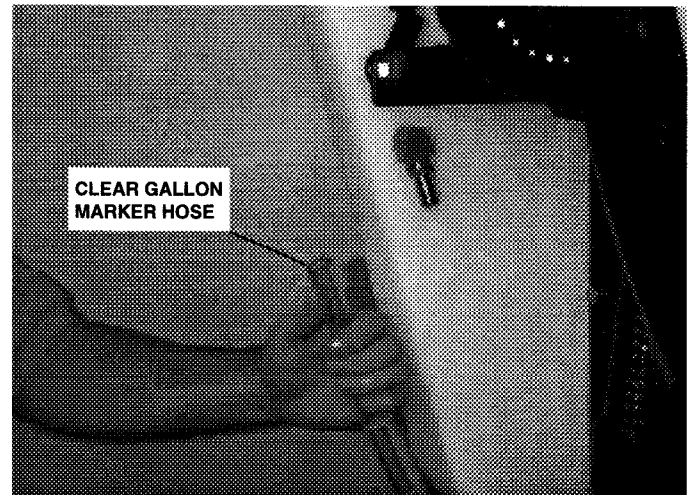


Fig. 16

- b. To rinse recovery tank, remove clear recovery dome and flush recovery tank with prespray wand. (Figure 17).

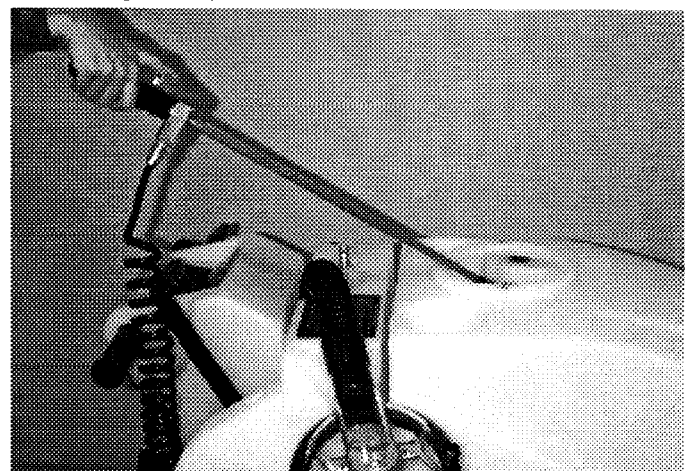


Fig. 17

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## MAINTENANCE:

**⚠ WARNING:** To avoid serious personal injury, disconnect power cord before servicing. Repairs must be performed by authorized personnel.

Keep your extractor in top condition and protect your warranty by performing these simple maintenance steps:

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### AFTER EACH USE:

1. Rinse recovery tank and recovery dome after every use to prevent odor buildup.
2. Clean recovery tank screen. You can remove whole screen/ball float to clean it. (Figure 18)

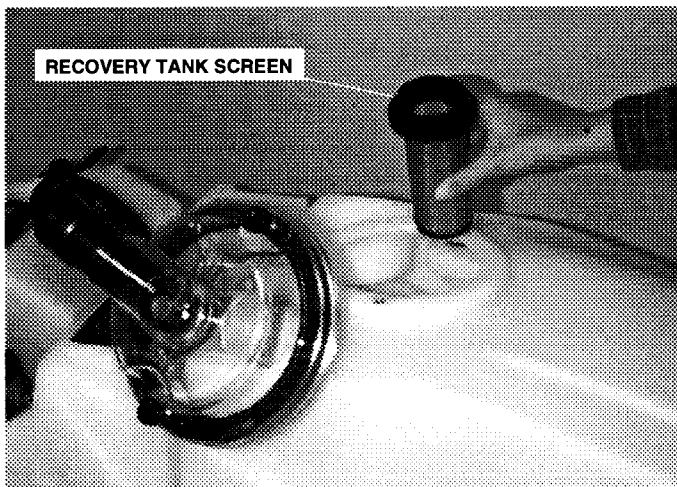


Fig. 18

3. Drain solution tank completely. Use clear drain hose at rear of extractor.
4. Remove any carpet strands or other clogging debris in brush.
5. Remove any clogging material lodged inside vacuum pickup head.

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### EVERY FORTY HOURS OF OPERATION:

Every forty hours of operation, run an anti-browning chemical through pump system to dissolve normal alkaline chemical buildup:

1. Pour 24 oz. (1L) of anti-browning chemical in solution tank with about 3 gal. (13 L) of warm water.
2. Place extractor over a floor drain and spray through spray jets for several seconds.
3. Allow solution to remain in system over night in *above freezing* temperatures.
4. Later, drain solution, then run 3 gal. (13 L) of clean water through system to flush out impurities.

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### ONCE EACH MONTH:

1. Clean solution screen located underneath extractor at front. (Figure 19)

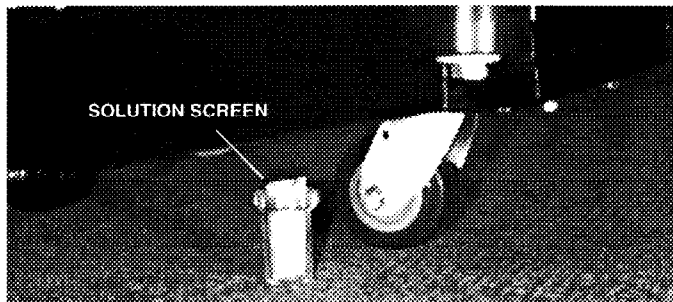


Fig. 19

2. Clean removable spray jets:
  - a. First remove spray bar at quick disconnect.
  - b. Push and turn to remove individual spray jets.
  - c. Soak spray jets in a mild acid or anti-browning chemical to dissolve normal alkaline chemical buildup.
3. Grease two fittings on front swivel caster. Use a quality waterproof grease.

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### EVERY 100 HOURS OF OPERATION:

Check tension of drive belt. The drive belt must be properly adjusted to eliminate any slippage. This provides best performance and minimizes belt wear.

**NOTE:** Belt may slip if wet.

### ADJUSTING DRIVE BELT:

1. Carefully lay extractor on its left side.
  2. Loosen (4) bolts on drive motor. (Figure 20)
  3. Loosen locknut on belt tension bolt.
  4. Turn belt tension bolt clockwise to tighten belt.
  5. Retighten locknut on belt tension bolt.
- DO NOT over tighten belt, the belt should flex 1/2" vertically at center. For proper adjustment, belt should represent diagram below.

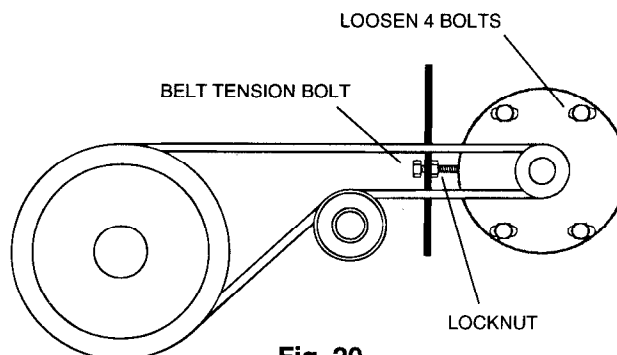


Fig. 20

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### EVERY 250 HOURS OF OPERATION:

Check vacuum motor carbon brushes. Replace brushes if worn to a length of 3/8" or less.

## TROUBLE SHOOTING GUIDE

### PROBLEM

### CAUSE

### SOLUTION

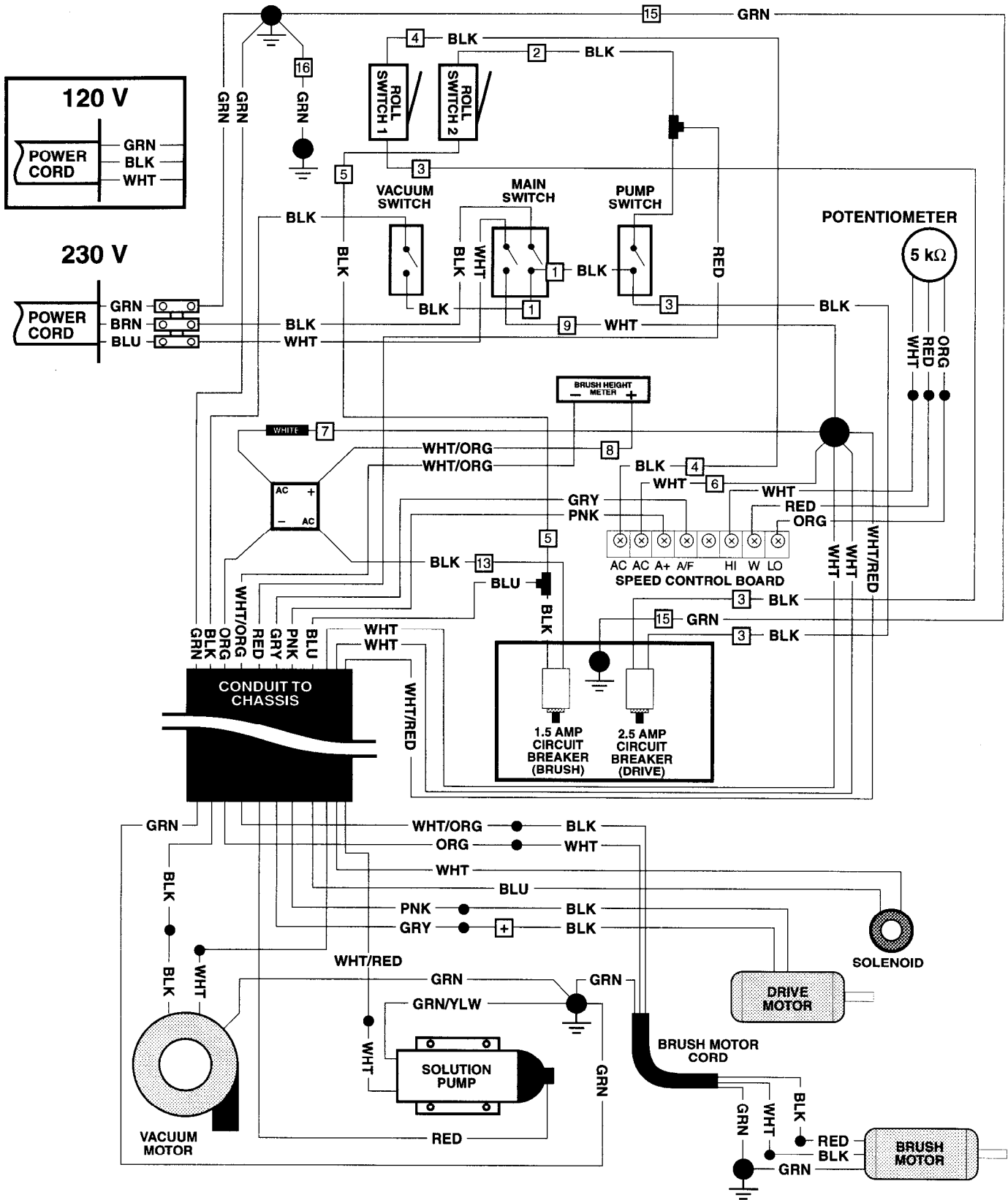
**WARNING!!! To avoid serious personal injury: Disconnect power before servicing. Electrical service must be performed by an authorized service station or electrician.**

<b>Nothing runs, there is no power.</b>	<ol style="list-style-type: none"> <li>1. MAIN switch is off or faulty.</li> <li>2. Power cord wire(s) have come loose from MAIN switch.</li> <li>3. Fuse blown or circuit breaker tripped in building.</li> <li>4. Short in power cord.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on MAIN switch or replace.</li> <li>2. <b>DO NOT USE MACHINE.</b> Have it repaired by an authorized service center or electrician before using.</li> <li>3. Reset breaker and plug machine into a circuit which is not as heavily loaded.</li> <li>4. Replace power cord.</li> </ol>
<b>Brush motor does not run.</b>	<ol style="list-style-type: none"> <li>1. 1.5 amp brush circuit breaker tripped because:               <ul style="list-style-type: none"> <li>• <i>Brush is adjusted too low.</i></li> <li>• <i>Brush is clogged with carpet strands or other debris.</i></li> <li>• <i>There is a dead short in the wiring.</i></li> </ul> </li> <li>2. PUMP switch is off or faulty.</li> <li>3. ROLL SWITCH 1 (left side) needs adjustment or is faulty.</li> <li>4. Loose wiring connection or broken wire.</li> <li>5. Faulty brush motor.</li> </ol>	<ol style="list-style-type: none"> <li>1. There are several reasons why this circuit breaker could trip:               <ul style="list-style-type: none"> <li>• <i>See ADJUSTING BRUSH HEIGHT on page 2.</i></li> <li>• <b>UNPLUG POWER CORD</b> and remove all clogging debris wrapped around brush.</li> <li>• <b>DO NOT USE MACHINE.</b> Have it repaired by an authorized service center or electrician before using.</li> </ul> </li> <li>2. Turn on PUMP switch. This switch activates spray jets and brush drive motor when you twist roll grips. Replace switch if faulty.</li> <li>3. Lever on ROLL SWITCH 1 may not be making contact with roll grip so switch does not activate when roll grips are turned. Bend lever slightly toward roll grip. If switch is faulty, replace it.</li> <li>4. <b>DO NOT USE MACHINE.</b> Have it repaired by an authorized service center or electrician before using.</li> <li>5. Replace brush motor.</li> </ol>
<b>Brush motor runs but brush does not spin.</b>	<ol style="list-style-type: none"> <li>1. Brush drive belt is loose or broken.</li> <li>2. Set screws for brush pulley or motor pulley have loosened.</li> </ol>	<ol style="list-style-type: none"> <li>1. If belt is loose, loosen brush motor mounting nuts then pivot motor until belt is tight. If belt is broken, replace.</li> <li>2. Tighten set screws.</li> </ol>
<b>Vacuum motor does not run.</b>	<ol style="list-style-type: none"> <li>1. VACUUM switch is off.</li> <li>2. VACUUM switch is faulty.</li> <li>3. Loose wiring connection or broken wire.</li> <li>4. Faulty vacuum motor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on VACUUM switch.</li> <li>2. Replace faulty switch.</li> <li>3. <b>DO NOT USE MACHINE.</b> Have it repaired by an authorized service center or electrician before using.</li> <li>4. Replace vacuum motor.</li> </ol>
<b>Vacuum motor runs but there is little or no suction.</b>	<ol style="list-style-type: none"> <li>1. Recovery tank is full and the auto shutoff float has shut off suction.</li> <li>2. Vacuum pickup head is clogged.</li> <li>3. Vacuum hose has come loose from vacuum pickup head.</li> <li>4. Vacuum hose has a loose cuff or it has a hole.</li> <li>5. Vacuum hose is not inserted tightly into clear recovery dome.</li> <li>6. Clear recovery dome is loose.</li> </ol>	<ol style="list-style-type: none"> <li>1. Empty recovery tank.</li> <li>2. Raise pickup head and use a coat hanger or other tool to remove clogging material.</li> <li>3. Push hose firmly onto vacuum pickup head.</li> <li>4. Tighten hose cuff or replace hose.</li> <li>5. Push hose firmly into dome.</li> <li>6. Tighten two knobs on clear dome.</li> </ol>
<b>Reverse release lever is hard to engage.</b>	<ol style="list-style-type: none"> <li>1. Belt tension is too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Readjust belt tension. (<i>See Maintenance Section.</i>)</li> </ol>

## TROUBLE SHOOTING GUIDE (Cont'd.)

PROBLEM	CAUSE	SOLUTION
<b>Prespray wand does not spray.</b>	1. MAIN and PUMP switches are off.	1. Turn on MAIN and PUMP switches.
	2. Trigger is locked on wand.	2. Unlock trigger.
	3. Spray jet on wand is plugged.	3. Remove spray jet and clean it with an anti-browning chemical.
	4. Solution screen is plugged and has shut off flow of water to solution pump.	4. See ONCE EACH MONTH.
	5. Loose or broken wiring.	5. DO NOT USE MACHINE. Have it repaired by an authorized service center or electrician before using.
	6. Faulty MAIN switch.	6. Replace MAIN switch.
	7. Faulty solution pump.	7. Replace solution pump.
<b>No spray through spray jets.</b>	1. MAIN switch is off.	1. Turn MAIN switch on.
	2. PUMP switch is off.	2. Turn PUMP switch on.
	3. User is not twisting rolling control grips.	3. Twist roll grips forward. This starts spray, brush motor and drive motor.
	4. Solution screen is plugged and has shut off flow of water to solution pump.	4. See ONCE EACH MONTH.
	5. Spray jets are plugged.	5. See ONCE EACH MONTH.
	6. Loose or broken wiring.	6. DO NOT USE THE MACHINE. Have it repaired by an authorized service center or electrician before using.
	7. Faulty solenoid valve.	7. Replace solenoid valve.
	8. Faulty MAIN or PUMP switch.	8. Replace faulty switch.
	9. ROLL SWITCH 1 needs adjustment or is faulty. Drive motor will not run in this situation.	9. Lever on ROLL SWITCH 1 may not be making contact with roll grip, so switch does not activate when roll grips are turned. Bend lever slightly toward roll grip. If switch is faulty, replace it.
	10. Faulty solution pump.	10. Replace solution pump.
<b>Extractor does not move when rotating control grips.</b>	1. Reverse release lever is engaged.	1. Disengage reverse release lever.
	2. Drive belt is loose.	2. Tighten belt. ( <i>See Maintenance Section.</i> )
	3. Drive belt is worn.	3. Replace drive belt. ( <i>See Maintenance Section.</i> )
	4. Drive belt is wet.	4. Dry belt off.
	5. MAIN switch is off.	5. Turn MAIN switch on.
	6. SPEED CONTROL knob is turned to slowest setting.	6. Turn SPEED CONTROL knob on dash to desired speed setting.
	7. 2.5 amp circuit breaker tripped.	7. Push breaker button to reset.
	8. Loose or broken wiring.	8. DO NOT USE MACHINE. Have it repaired by an authorized service center or electrician before using.
	9. ROLL SWITCH 1 or 2 needs adjustment or is faulty.	9. Lever on either of two switches may not be making contact with roll grip, so switch does not activate when roll grips are turned. Bend levers slightly toward roll grip. If a switch is faulty, replace it.
	10. SPEED CONTROL BOARD needs adjusting or is faulty.	10. See your authorized service center for proper adjustment or replacement.
	11. Faulty drive motor.	11. Replace drive motor.

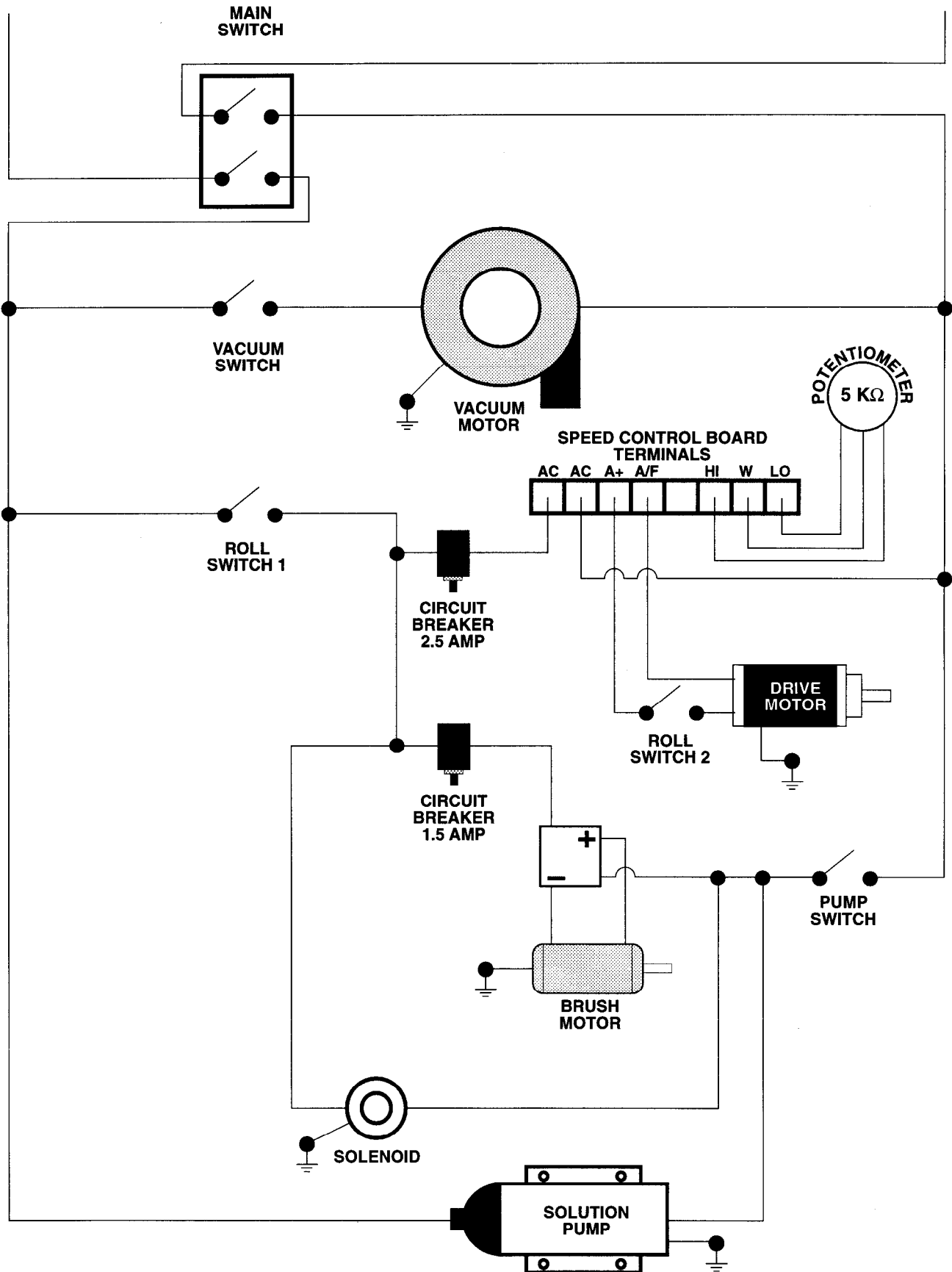
# WIRING DIAGRAM



# LADDER DIAGRAM

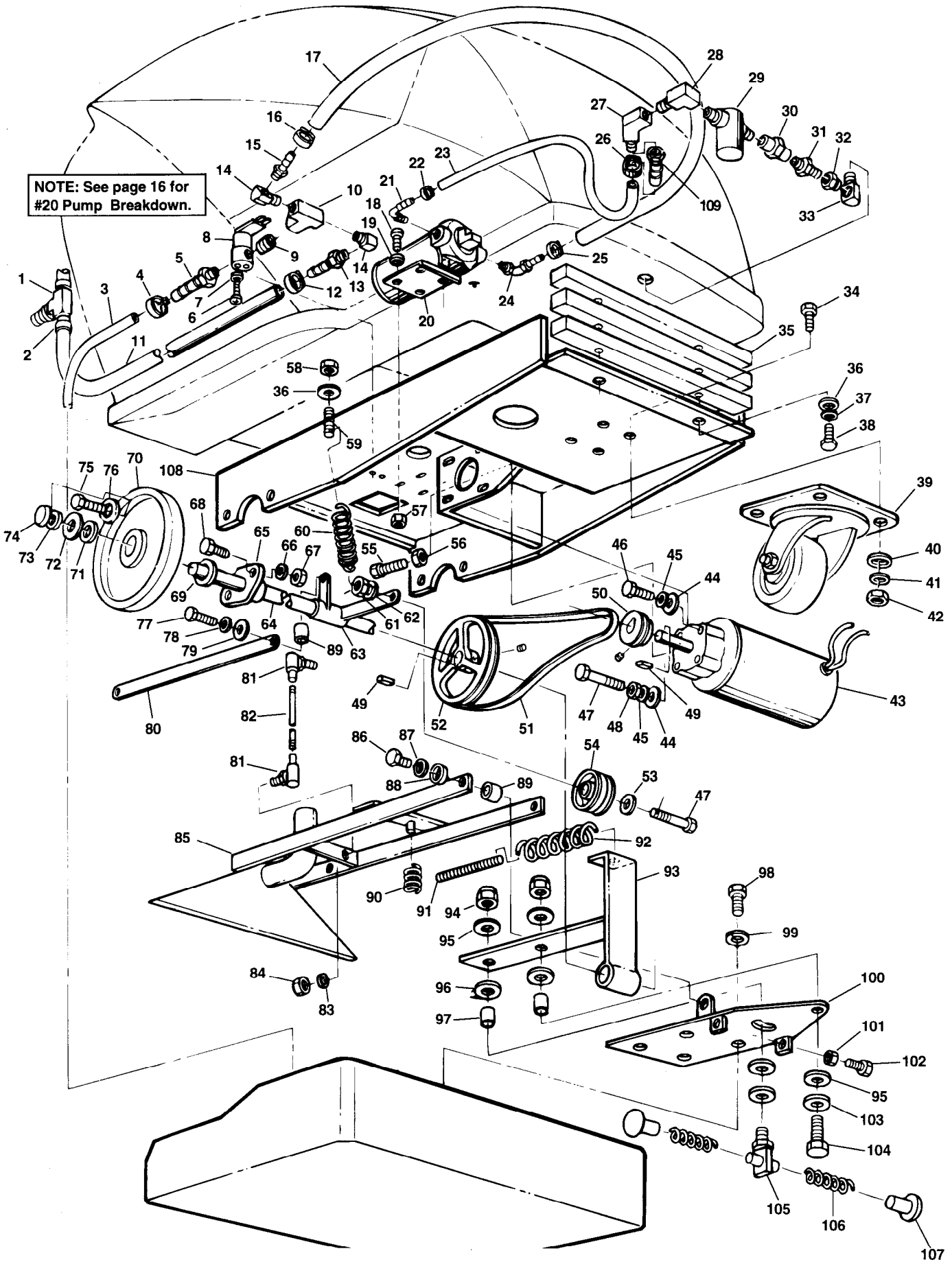
LINE 1

LINE 2



# CHASSIS PARTS DIAGRAM

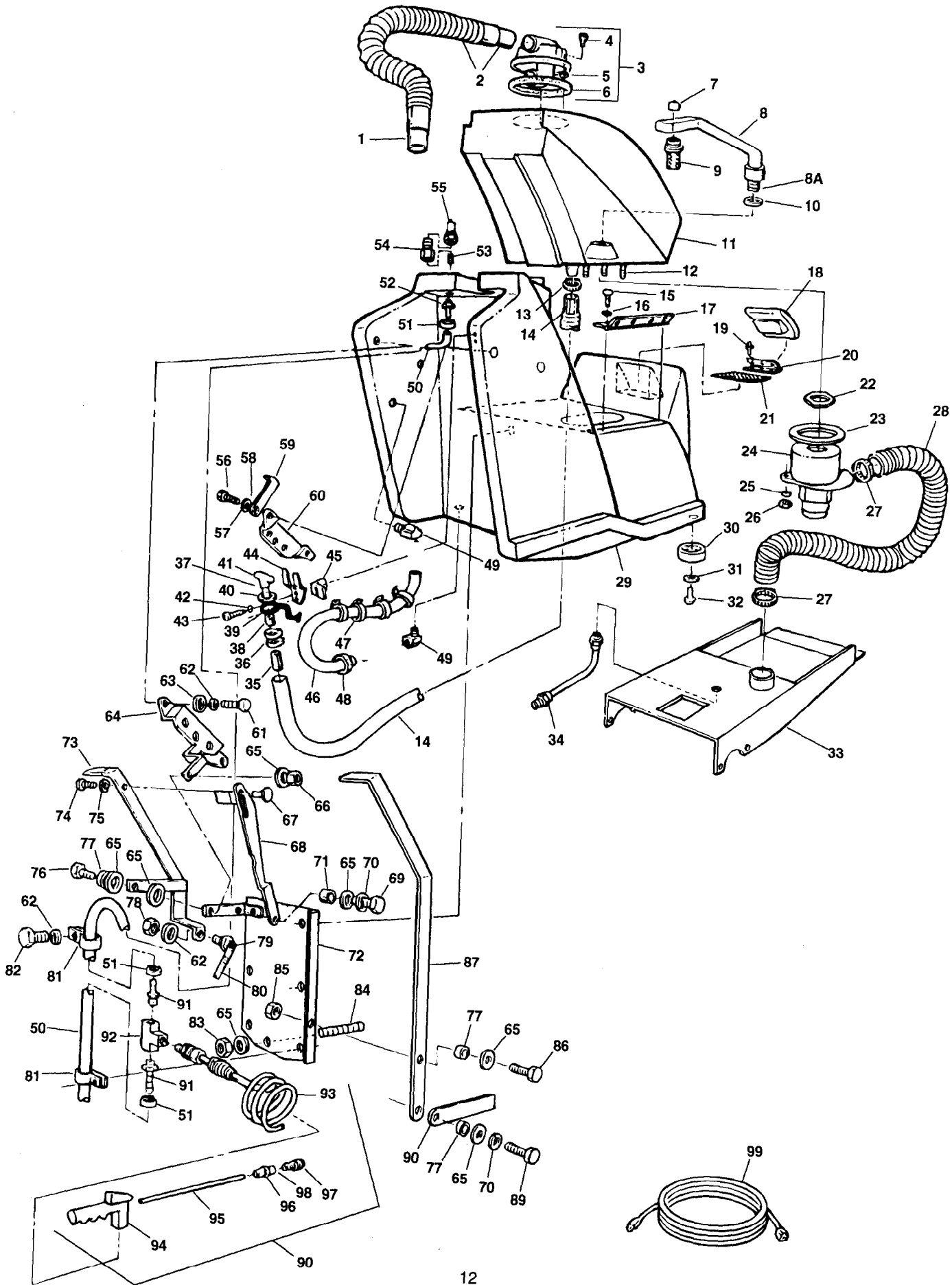
NOTE: See page 16 for #20 Pump Breakdown.



## CHASSIS PARTS LIST

ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	TEE, 1/4	150706	1	54.	PULLEY, IDLER	230764	1
2.	CLAMP, HOSE	140310	1	55.	SCREW, 3/8X1-1/2	140231	1
3.	HOSE, 1/4" LP GRAY - BULK	160204	1.375'	56.	NUT, JAM 3/8-16	140545	1
4.	CLAMP, EAR 1/4"	140325	1	57.	NUT, NYLON LOCK 10-24	140552	2
5.	HOSE BARB, 1/4M X 1/4H	150515	1	58.	NUT, HEX 3/8-16	140525	1
6.	SCREW, 8-32X3/8	140801	2	59.	STUD	140342	1
7.	WASHER, INT LCK	140023	2	60.	SPRING	140345	1
8.	VALVE, SOLENOID 120 VOLT 60 HZ	210033	1	61.	NUT, JAM 3/8	140545	1
	VALVE, SOLENOID 230 VOLT 50 HZ.	210036	1	62.	WASHER, LOCK	140017	1
9.	NIPPLE, 1/4 CLOSE	150615	1	63.	BRACKET, IDLER PIVOT	230759.BK	1
10.	TEE, 1/4 FPT	150706	1	64.	AXLE DRIVE SHAFT	230419	1
11.	HOSE, 3/8 LP GRAY - BULK	160207	2.66'	65.	BEARING, FLANGE	140128	2
12.	CLAMP, HOSE 5/16-7/8	140310	1	66.	WASHER, SPLIT LOCK 3/8"	140017	4
13.	HOSE BARB, 1/4M X 3/8H	150516	1	67.	NUT, HEX 3/8-16 - S/S	140525	4
14.	ELBOW, STRT 1/4" X 90°	150406	2	68.	SCREW, HXHDGP 3/8-16X1-1/4 S/S	140232	4
15.	HOSE BARB, 1/4M X 1/2H	150517	1	69.	WASHER, OUTER WHEEL	140047	2
16.	CLAMP, HOSE 3/8-7/8	140306	1	70.	WHEEL, DRIVE R.H.	700821	1
17.	HOSE, 1/2" RED-BULK	160220	2'		WHEEL, DRIVE L.H.	700820	1
18.	SCREW, 10-24X1-1/4	140899	2	71.	WASHER, OUTER WHEEL	140047	2
19.	WASHER, FLAT 3/16	140011	2	72.	WASHER, FLT	140055	2
20.	PUMP, 100 PSI - 120 VOLT	180103	1	73.	WASHER, 5/16" FOR #150210	140048	2
	PUMP, 100 PSI - 230 VOLT	180109	1	74.	PLUG, CAP-BLACK	150210	2
21.	ELBOW, 3/8M X 3/8H 90°	150412	1	75.	SCREW, 5/16-18X3/4	140223	2
22.	CLAMP, HOSE	140306	1	76.	WASHER, SPLIT LOCK 5/16	140015	2
23.	HOSE, 3/8 LP GRAY - BULK	160207	.875'	77.	SCREW, 3/8-16X3/4	140201	2
24.	ELBOW, 3/8M X 1/2H 90°	150425	1	78.	WASHER, LOCK 3/8	140017	2
25.	CLAMP, HOSE 3/8-7/8	140306	1	79.	WASHER, FLAT	140028	2
26.	CLAMP, EAR	140301	1	80.	LINK, BELT DRIVE	230757.BK	1
27.	ELBOW, 1/4" 45°	150400	1	81.	JOINT, BALL - LIFT ROD	140119	2
28.	ELBOW, STRT 1/4" X 90°	150406	1	82.	ROD, LIFT BRUSH ASM	230412	1
29.	FILTER, 1/4NPT CLR BOWL	180619	1	83.	WASHER, SPLIT LOCK 5/16	140015	1
	STRAINER, INLINE (NOT SHOWN)	180632	1	84.	NUT, HEX 5/16-24	140508	1
	SLEEVE, FILTER (NOT SHOWN)	180638	1	85.	WELDMENT, PICK UP TOOL (BK)	230402.BK	1
30.	COUPLING, 1/4F X 1/4F	150302	1	86.	SCREW, 3/8-16X3/4	140201	2
31.	NIPPLE, 1/4 X 2	150600	1	87.	WASHER, SPLIT LOCK 3/8"	140017	2
32.	BUSHING, 1/4F X 3/8M	150006	1	88.	WASHER, FLAT 3/8"	140028	2
33.	ELBOW, STREET 3/8" 90°	150420	1	89.	BUSHING, 3/8 X 1/2	140136	3
34.	SCREW, 3/8-16X1	140202	4	90.	SPRING	140407	1
35.	PLATE, COUNTER WEIGHT (BK)	230462.BK	3	91.	ROD, PRESSURE SPRING	230413	1
36.	WASHER, FLAT 3/8"	140028	2	92.	SPRING, BRUSH PRESSURE	140423	1
37.	WASHER, SPLIT LOCK 3/8"	140017	2	93.	BRACKET, PIVOT BRUSH ASM (BK)	230404.BK	1
38.	SCREW, 3/8-16X3-3/4	2949.30	2	94.	NUT, LCK-NYLN INSERT 1/2	140516	4
39.	CASTER, 4" SWIVEL	103002	1	95.	WASHER, FLAT 1/2	140008	2
40.	WASHER, FLAT 3/8"	140028	4	96.	WASHER, POLY 1/2	140040	2
41.	WASHER, SPLIT LOCK 3/8" - S/S	140017	4	97.	BUSHING	140139	2
42.	NUT, HEX 3/8-16	140525	4	98.	SCREW, 5/16-18X3/4	140223	4
43.	MOTOR, GEAR 115 VOLT	130463	1	99.	WASHER, SPLIT LOCK 5/16"	140015	4
	MOTOR, GEAR 230 VOLT	130469	1	100.	BRACKET, BRUSH MNT ASM (BK)	230405.BK	1
44.	WASHER, FLAT 3/8"	140028	4	101.	NUT, HEX 3/8-16	140525	2
45.	WASHER, SPLIT LOCK 3/8"	140017	4	102.	SCREW, 3/8-16X1-3/4	140233	2
46.	SCREW, 3/8-16X3/4	140201	3	103.	WASHER, FLAT 1/2"	140008	2
47.	SCREW,	140225	2	104.	SCREW, 1/2-13X1-1/2	140204	1
48.	NUT, HEX 3/8-16	140525	1	105.	BOLT PIVOT SPRING	230463	1
49.	KEY, 1/4 X 1" (+.000/-0.002)	140632	2	106.	SPRING COMPRESSION RIVET	140337	2
50.	PULLEY, MOTOR	230761	1	107.	PIN PILOT SPRING	230464	2
51.	BELT	230763	1	108.	WELDMENT CHASSIS (BK)	230400.BK	1
52.	PULLEY, AXLE	230762	1	109.	HOSE BARB, 1/4 FPT X 3/8HOSE	150511	1
53.	WASHER, FLAT 3/8"	140028	1				

# UPPER HOUSING PARTS DIAGRAM



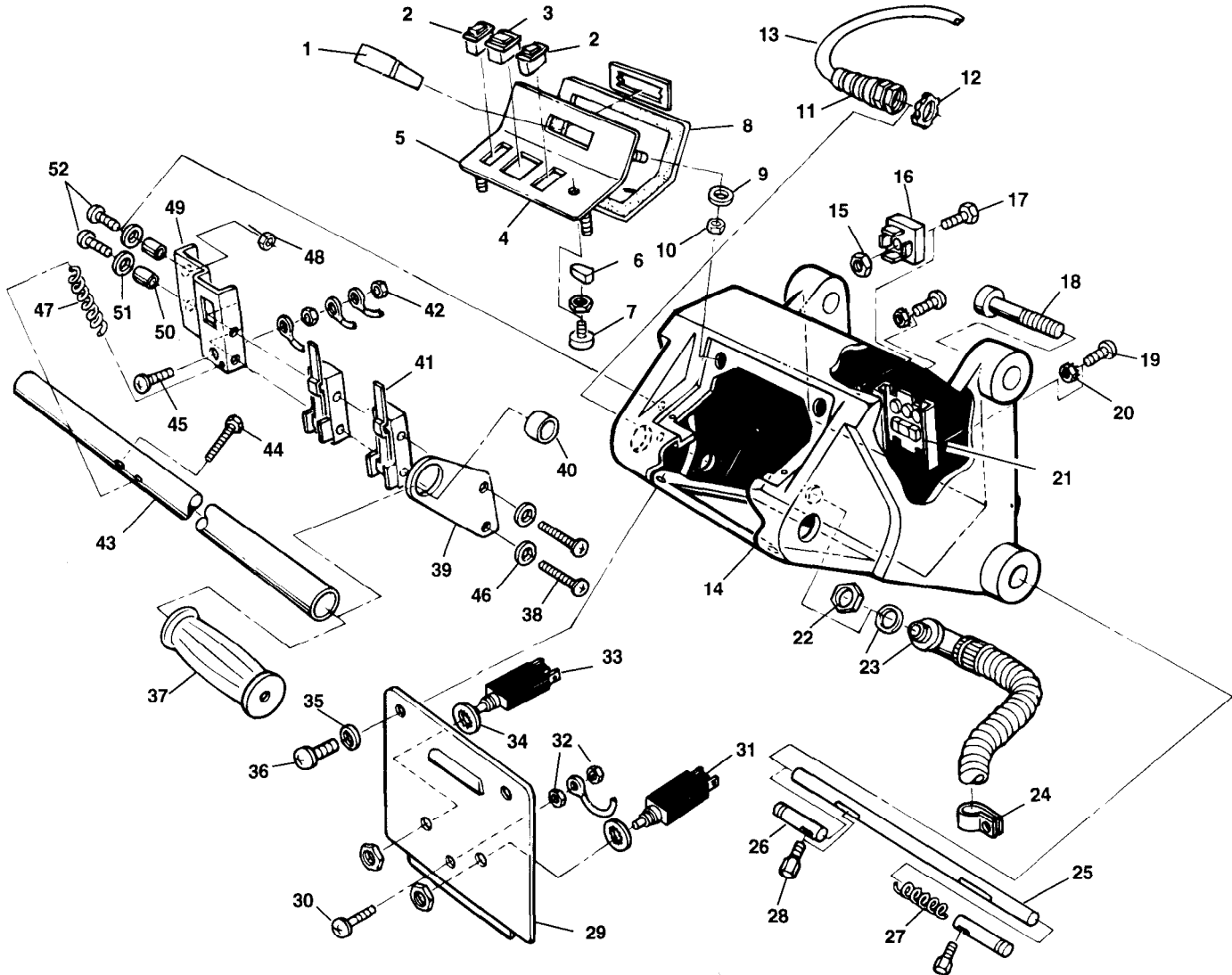
## UPPER HOUSING PARTS LIST

ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	CUFF, HOSE 1 1/2	160486	1	49.	ELBOW, 3/8MX1/2H 90 DEG NYLN	150425	2
2.	HOSE, VAC W/ONE CUFF	160413	1	50.	HOSE, 3/8 LP GRAY- BULK	160207	1.083"
3.	▼ ASM., DOME W/ KNOBS	700683	1	51.	CLAMP, HOSE	140301	1
4.	▲ KNOB, DOME	240217	2	52.	HOSE BARB, 1/4F X 3/8H	150511	1
5.	▲ WASHER	140037	2	53.	NIPPLE, 1/4 CLOSE	150615	1
6.	▲ GASKET, DOME	100042	1	54.	ADAPTER, 1/4F X 1/4M	150000	1
7.	GASKET, TUBE	100029	1	55.	PLUG, QCK COUP BRASS - SER 60	150933	1
8.	ASM., STANDPIPE	100759	1	56.	SCREW, 5/16-18X3/4	140223	2
8A	NIPPLE, 1-1/2 PVC	230187	1	57.	WASHER, LOCK 5/16	140015	2
9.	FLOAT, SHUT-OFF	180613	1	58.	WASHER, FLAT (NOT SHOWN)	140027	2
10.	GASKET	101714	1	59.	BRACKET, REVERSE LATCH	230883	1
11.	TANK, RECOVERY (NAT.)	100281	1	60.	PLATE, LOCK CONTROL R.H.	230661	1
	TANK, RECOVERY (GRAY)	100328	1	61.	SCREW, HXHDCP 5/16-18X3/4	140223	2
12.	STUD, 1/4-20X5	140238	3	62.	WASHER, SPLIT LOCK 5/16	140015	2
13.	CLAMP, HOSE	140307	1	63.	WASHER, FLAT 5/16"	140027	2
14.	HOSE, DRAIN	160414	1	64.	PLATE, LOCK CONTROL L.H.	230297	1
15.	SCREW, 1/4-20X1/2	140885	9	65.	WASHER, FLAT 3/8"	140028	1
16.	WASHER, LCK 1/4"	140052	9	66.	NUT, LCK 3/8-16	140515	1
17.	HINGE, TANK	230418	1	67.	SPACER, SQUEEGEE LIFT	230631	1
18.	COVER, TANK (NAT.)	100285	1	68.	LATCH, SQUEEGEE HANDLE	230659	1
	COVER, TANK (GRAY)	100160	1		GRIP, RUBBER	200817	1
19.	RIVET, POP	140706	9	69.	SCREW, 3/8-16X3/4	140201	1
20.	HINGE, COVER	230626	1	70.	WASHER, SPLIT LOCK 3/8"	140017	1
21.	SCREEN, FILL	230693	14'	71.	BUSHING, 3/8 ID X 1/2 OD X .260	140136	1
22.	NUT, FLANGED METAL	210240	1	72.	WELDMENT REAR PANEL (BK)	230787.BK	1
23.	GASKET, VAC MOTOR	100038	1	73.	HANDLE LIFT LEVER	230472.BK	1
24.	MOTOR, VAC 5.7/3 STG 120V	130996	1		GRIP, HANDLE, RUBBER	200816	1
	CARBON BRUSHES	600177	1	74.	SCREW, HXHDCP 1/4-20X5/8	140259	1
	MOTOR, VAC 5.7/3 STG 230V	130403	1	75.	WASHER, LOCK 1/4" - S/S	140016	1
	CARBON BRUSHES	190158	1	76.	SCREW, 3/8-16X1-1/4	140232	1
25.	WASHER, FLAT 1/4"	140000	3	77.	BUSHING, 3/8 ID X 1/2 OD X .260	140136	1
26.	NUT, LCK	140501	3	78.	NUT, HEX 5/16-24 - ZINC	140508	1
27.	CLAMP, HOSE	140308	2	79.	JOINT, BALL - LIFT ROD	140119	2
28.	HOSE, EXHAUST 2"	160487	36"	80.	ROD, LIFT BRUSH	230412	1
29.	CHASSIS, (NAT.)	100280	1	81.	CLAMP, INSULATED 3/4"	140314	3
	CHASSIS, (GRAY)	100326	1	82.	SCREW, 5/16-18X1	140219	3
30.	WHEEL	103037	2	83.	NUT, HEX 3/8-16	140525	1
31.	WASHER, FLAT 1/2"	140008	2	84.	ROD, PRESSURE SPRING	230413	1
32.	SCREW, 1/2-13 X 2-1/2	140234	2	85.	NUT, LOCK	140515	1
33.	WELDMENT, CHASSIS	230400.BK	1	86.	SCREW	140202	1
34.	CORD ASSY BASE 18/3X36"	130290	1	87.	HANDLE, REVERSE	230760.BK	1
35.	SLEEVE, DRAIN HOSE	140921	1	88.	LINK, BELT DRIVE	230757.BK	1
36.	CLAMP, EAR 1-9/16"	140317	2	89.	SCREW	140201	1
37.	▼ ASM., DRAIN HOSE STOPPER	701061	1	90.	▼ ASM., SPRAY GUN	700664	1
38.	▲ PLUG, DRAIN HOSE	140955	1	91.	▲ HOSE BARB, 1/4M X 3/8	150516	1
39.	▲ STRAP, DRAIN HOSE	230882	1	92.	▲ TEE, 1/4 FPT	150706	1
40.	▲ WASHER, FNDR	140056	1	93.	▲ HOSE, RECOIL 1/4 X 12 FT BLK	160132	1
41.	▲ KNOB, DRAIN HOSE	230831	1	94.	▲ GUN, SPRAY W/GRIP	230986	1
42.	WASHER, INT LOCK	140042	2	95.	▲ WAND, SPRAY GUN	230835	18"
43.	SCREW, 6-32X3/8	140810	2	96.	▲ COUPLING, 1/8F X 1/8F	150307	1
44.	BRACKET, DRAIN HOSE HNDR BK	230696.BK	1	97.	▲ NOZZLE, 1/8 V-JET #80015	201000	1
45.	BRACKET, HOSE HANGER CLIP	230296	1	98.	▲ GROMMET, TAPERED	240212	1
46.	TUBING, VINYL	14894	1.83'		▲ HOSE, 3/8 LP GRAY (ITEM #50)	160207	1
47.	WIRE TIE, NYLON	130040	4		▲ CLAMP, 3/8 (ITEM #51)	140301	1
48.	CLAMP, HOSE	140306	1	99.	CORD, 14/3 X 75' YELLOW	130229	1

▼ = ASSEMBLY

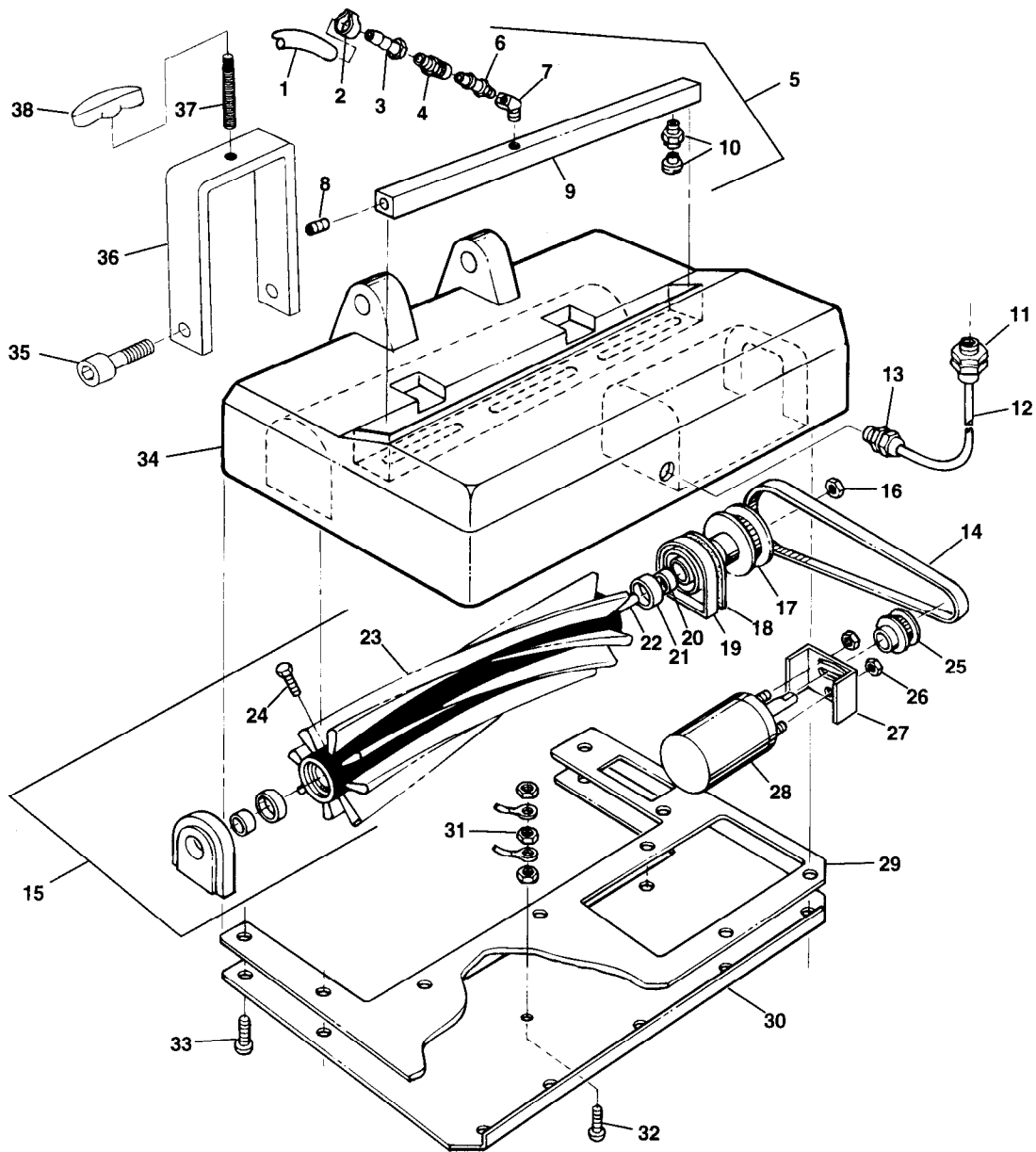
▲ = ITEMS INCLUDED IN ASSEMBLY

# CONTROL HOUSING PARTS LIST



ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	METER, AMP	130019	1	26.	PIN, HANDLE ADJUSTMENT LOCK	230648	2
2.	SWITCH, ROCKER ON/OFF 120/220V	130717	2	27.	SPRING, LOCK PIN	140415	1
3.	SWITCH, ROCKER DPST	130647	1	28.	PIN, HANDLE ADJUSTMENT	230649	2
4.	PANEL CONTROL 120 VOLT (BK)	230465.BK	1	29.	PLATE, CONTROL COVER	230470.BK	1
5.	DECAL, DASH FALCON 2800	120594	1	30.	SCREW, 10-24X3/4	140900	1
6.	KNOB, SPEED CONTROL	130770	1	31.	BREAKER, CIRCUIT 2.5 AMP	130746	1
7.	POTENTIOMETER	130283	1	32.	NUT, KEP 10-24	140519	2
8.	GASKET, CONSOLE	100057	1	33.	BREAKER, CIRCUIT 1.5 AMP	578337000	1
9.	WASHER, FLAT 1/4" BULK	140000	2	34.	WASHER, INT LCK 3/8	140022	2
10.	NUT, KEP 10-24 BULK	140519	4	35.	WASHER, INT LCK #10	140018	2
11.	CORD GRIP	130167	1	36.	SCREW, 10-24X3/8	140887	2
12.	NUT, CONDUIT LOCK 1/2"	140504	1	37.	GRIP, HANDLE BLACK	200823	2
13.	CORD, 14/3 X 34" YELLOW	130228	1	38.	SCREW, 6-32X1-3/4	140830	2
14.	CONTROL HOUSING, (NAT.) CONTROL HOUSING, (GRAY)	100286 100329	1 1	39.	BRACKET, SWITCH	27098	1
15.	NUT, HEX 10-24 NYLN	140336	1	40.	BUSHING	27099	1
16.	RECTIFIER, MINIBRIDGE - 600V	130304	1	41.	SWITCH, ROLL THROTTLE	130729	2
17.	SCREW, 10-24X1" NYLN	140335	1	42.	NUT, KEP 10-24	140519	2
18.	BOLT, SHLDR 5/8X2	140241	2	43.	HANDLE, TUBE (A)	230518	1
19.	SCREW, 10-24X1/2	140890	2	44.	SCREW, 5/16-18X2	140222	1
20.	NUT, KEP 10-24	140519	2	45.	SCREW, 10-24X3/4	140900	1
21.	BOARD, CONTROL W/ POT. & KNOB	130379	1	46.	WASHER, LOCK EXT #6	140019	2
22.	NUT, CONDUIT LOCK 1/2"	140504	1	47.	SPRING	25648	1
23.	HARNES, WIRING	130855	1	48.	NUT, LCK NYL 1/4	140501	2
24.	CLAMP, INSULATED 3/4" ID	140314	1	49.	MOUNT, SWITCH (A)	25671	1
25.	TUBE, HANDLE ADJUSTMENT	230613	1	50.	SPACER, .257X.5X.562-NYLON	140143	2
				51.	WASHER, FLAT 1/4"	140000	2
				52.	SCREW, 1/4-20X1-1/2	140846	2

# BRUSH HOUSING PARTS LIST

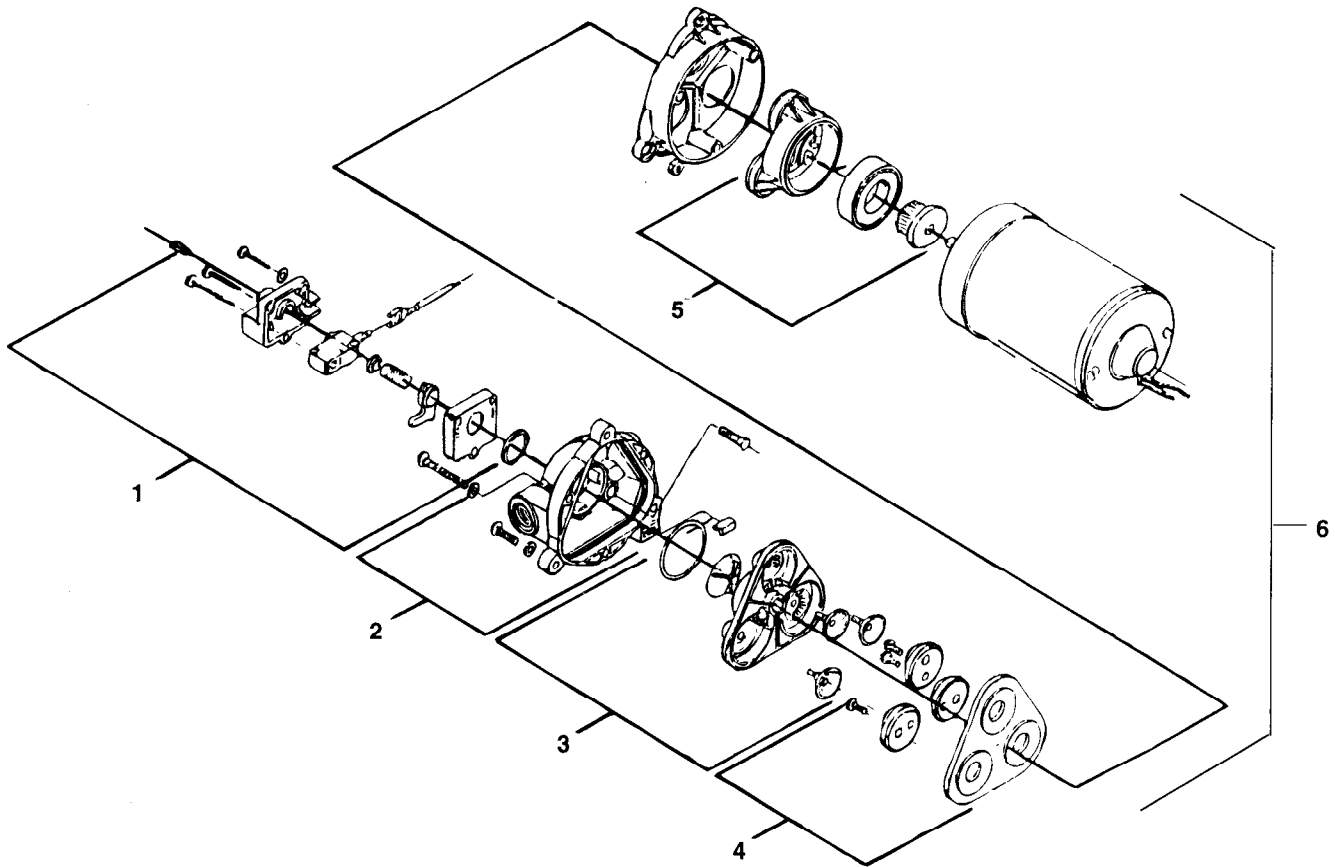


ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	HOSE, 1/4" LP GRAY - BULK	160204	1.29'	21.	▲ SEAL, BRUSH BEARING	100049	2
2.	CLAMP, EAR 1/4"	140325	1	22.	▲ SHAFT, BRUSH 22"	230406	1
3.	HOSE BARB, 1/8F X 1/4H	150520	1	23.	▲ BRUSH CYLINDER 22"	240063	1
4.	COUPLER, QCK 1/8 SER. 5	150915	1	24.	▲ SCREW, 1/4-20X3/4	140554	4
5.	▼ ASM., SPRAYBAR	700423	1	25.	PULLEY, MOTOR	230410	1
6.	▲ PLUG, QCK COUPLER - SER. 5	150921	1	26.	NUT, KEP 10-32	140518	2
7.	▲ ELBOW, STRT 1/8MX1/8F 45°	150422	1	27.	BRACKET, BRUSH MOTOR	230411	1
8.	▲ PLUG, SCKT HD 1/8	150208	2	28.	MOTOR, BRUSH DRIVE 120 VOLT	130471	1
9.	▲ MANIFOLD, SPRAYBAR 22"	230407	1		BRUSH CARD FOR 130471	190150	1
10.	▲ NOZZLE, BRASS #80015	201011	6		MOTOR, BRUSH DRIVE 230 VOLT	130472	1
11.	CORD GRIP, 1/2N NYL BK	130181	1		BRUSH CARD FOR 130472	190154	1
12.	CORD, 18/3 BLACK -BULK	130939	3.0'	29.	GASKET, BASE PLATE - 22"	100157	1
13.	CORD GRIP, 3/8N NYL BK	130190	1	30.	PLATE, BASE 22"	230401.BK	1
14.	BELT, TIMING 18.75"	230409	1	31.	NUT, KEP 10-24	140519	3
15.	▼ ASM., BRUSH 22"	700422	1	32.	SCREW, 10-24X3/4	140900	1
16.	▲ NUT, FINISHED JAM 5/16	140548	1	33.	SCREW, 10-24X3/8	140887	12
17.	▲ PULLEY, BRUSH	230408	1	34.	BASE 22"	100282	1
	SET SCREW, PULLEY	140859	1	35.	BOLT, SHOULDER 3/8 X 3/4	140564	2
18.	▲ GASKET, BEARING BLOCK	100005	1	36.	BRACKET, HT ADJ (BK)	230365.BK	1
19.	▲ BLOCK, BEARING	230261	2	37.	STUD, HGT ADJ, 3.5"	230479	1
20.	▲ BEARING, BRUSH	140125	2	38.	KNOB, HEIGHT ADJUSTMENT	240194	1

▼ = ASSEMBLY

▲ = ITEMS INCLUDED IN ASSEMBLY

## PUMP PARTS LIST



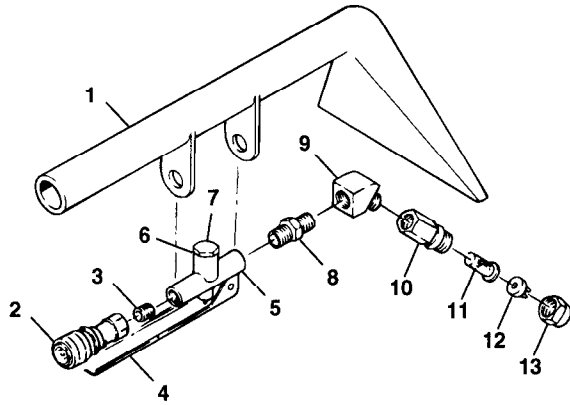
ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	KIT, PRESSURE SWITCH	190129	1	3.	KIT, VALVE (VITON)	190171	1
	KIT, PRESSURE SWITCH (VITON)	190172	1	4.	KIT, SERVICE	190131	1
	KIT, DIAPHRAGM ONLY	190134	1	5.	KIT, LOWER PUMP HOUSING	190130	1
2.	KIT, UPPER PUMP HOUSING	190128	1	6.	PUMP, 100 PSI 120V (COMPLETE)	180103	1
	KIT, CHECK VALVE ONLY	190124	1		PUMP, 100 PSI 220V (COMPLETE)	180109	1

### DECAL PARTS LIST (NOT SHOWN)

DESCRIPTION	PART #	QTY.
DECAL, SIDELINE LH	121002	1
DECAL, SIDELINE RH	121003	1
DECAL, "DO NOT ALLOW FOAM"	120399	1
DECAL, "CASTEX" LOGO BLUE	120877	1
DECAL, "NOBLES" LOGO	120239	1
DECAL, WARNING	120619	1
DECAL, DASH	120594	1
DECAL, INSTRUCTIONS	120593	1

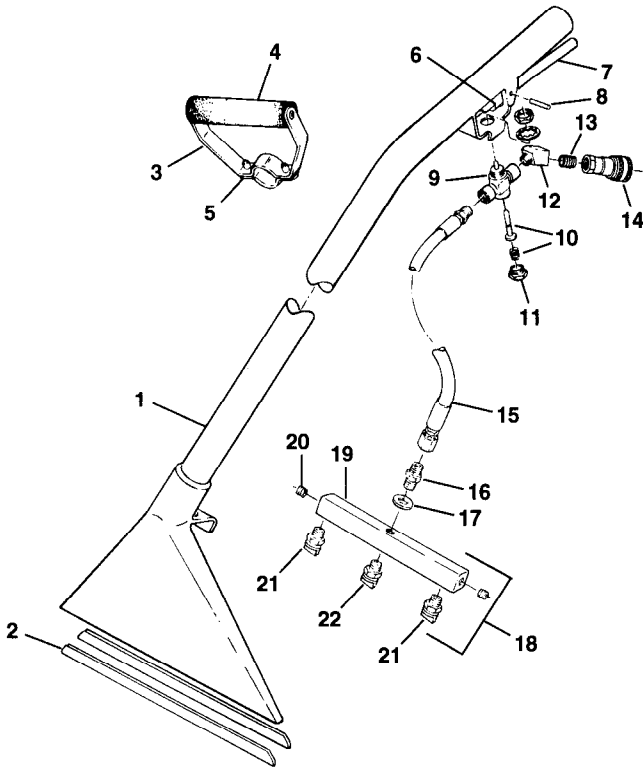
# OPTIONAL ACCESSORIES PARTS LIST

## 5" HAND TOOL #200505



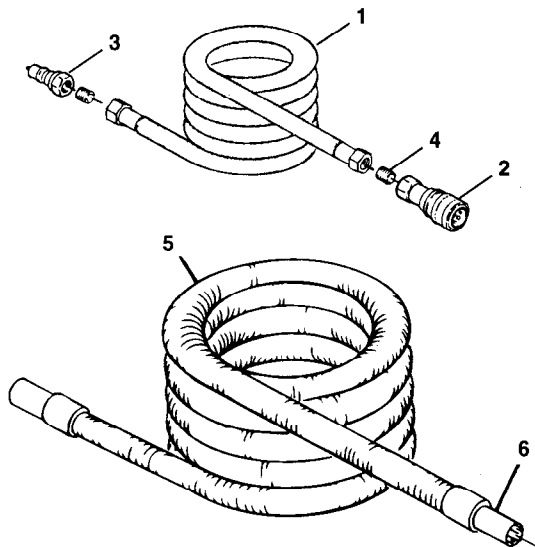
ITEM #	DESCRIPTION	PART #	QTY.
1.	TOOL, HAND	200431.BK	1
2.	COUPLER, QUICK, SER. 60	150913	1
3.	NIPPLE, CLOSE	150615	1
4.	TRIGGER, HAND TOOL	200905	1
5.	VALVE, FLOW CONTROL	210210	1
6.	VALVE PIN & SPRING (NOT SHOWN)	190600	1
7.	CAP, HEX, VALVE	N/A	1
8.	NIPPLE, HEX 1/4"	150606	1
9.	ELBOW, ST 1/4" 45°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

## FLOOR TOOL #600048



ITEM #	DESCRIPTION	PART #	QTY.
1.	TOOL, FLOOR	200403.BK	1
2.	SHOES, FLOOR TOOL	200939	2
3.	GRIP, ADJUSTABLE COMPLETE	200927	1
4.	FOAM, GRIP	200912	1
5.	SCREW, 1/4X3/4	140554	2
6.	TRIGGER, FLOOR TOOL	200902	1
7.	SLEEVE, TRIGGER	200809	1
8.	PIN NUT, PUSH	140605 140520	1 2
9.	VALVE, FLOW CONTROL	210150	1
10.	KIT, VALVE PIN & SPRING	190603	1
11.	CAP, HEX, VALVE	N/A	1
12.	ELBOW, 1/4-45°	150403	1
13.	NIPPLE, CLOSE 1/4"	150615	1
14.	COUPLER, QUICK SER. 60	150913	1
15.	HOSE, 1/4 HP W/ SWEDGE	160170	1
16.	NIPPLE, HEX 1/4"	150606	1
17.	WASHER	140058	1
18.	ASM., SPRAY BAR	700062	1
19.	SPRAY BAR MANIFOLD	231027	1
20.	PLUG, 1/8	150208	2
21.	NOZZLE, V-JET #8003	201004	2
22.	NOZZLE, V-JET #11003	201003	1

## HOSES



ITEM #	DESCRIPTION	PART #	QTY.
1.	HOSE, SOLUTION 25'	160186	1
2.	COUPLER, QUICK SER. 60	150913	1
3.	PLUG, QUICK COUPLER	150933	1
4.	NIPPLE	150615	2
5.	HOSE, VACUUM 25'	160401	1
6.	CUFF, HOSE 1-1/2"	160430	2

## PARTS NOT SHOWN:

CONNECTOR, VAC HOSE 1-1/2"	160451	1
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