

Castex®

Trooper 1500H

CARPET EXTRACTOR WITH HEAT

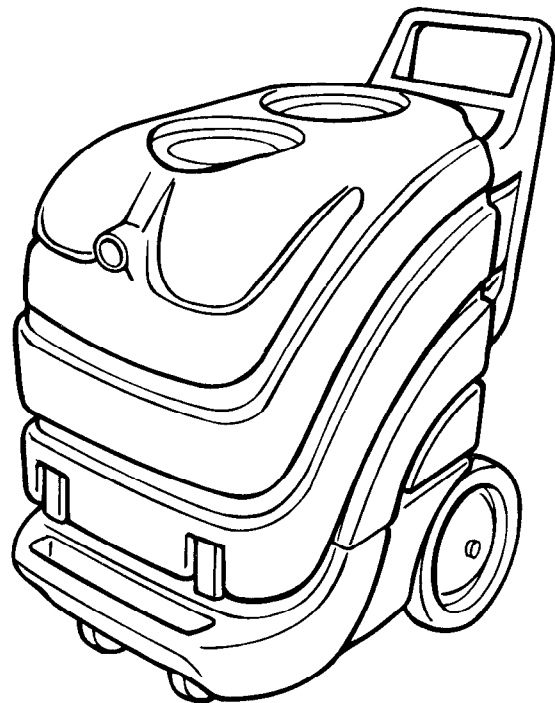
MODEL: 601347

Operator & Parts Manual

Record Serial No. Here: _____



PDF Version of Manual by:
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602610

Rev. 01 (10-96)

⚠ ATTENTION: All operators and maintenance personnel **MUST** read and understand this manual before operating or maintaining this equipment. For assistance contact your local service center.

MACHINE SET UP

1. Unscrew and remove front clear lid. Fill clean water bladder with 15 gallons of hot water, (140°F, 60°C max.). Add recommended cleaning agent to proper dilution ratio. (Figure 1)

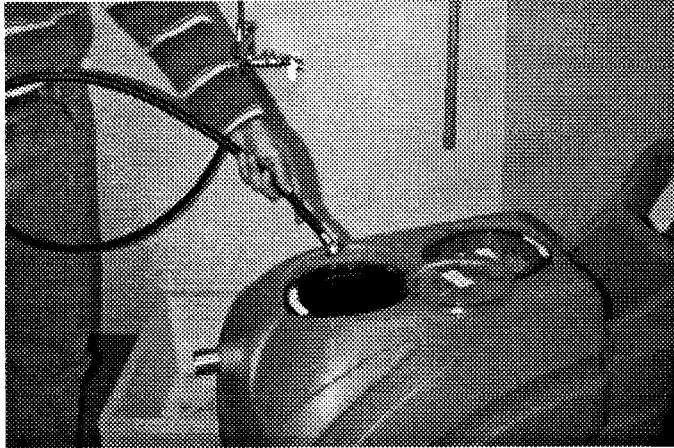


FIG. 1

⚠ WARNING: Use only nonflammable commercial chemicals intended for machine application.

NOTE: After filling clean water bladder, **REPLACE CLEAR LID AND TIGHTEN SECURELY.** Suction in recovery tank will overexpand clean water bladder if cover is not sealed.

⚠ CAUTION: Do not mix powdered chemicals in extractor's clean water bladder. Mix powdered chemicals thoroughly in a bucket before pouring into machine. Powders are unlikely to dissolve completely and can clog solution pump system.

⚠ CAUTION: If using a bucket to fill and empty machine use separate buckets. Always use a clean bucket to fill machine. Dirty water in clean water bladder will clog solution pump system.

2. Connect (2) 25' extension power cords to machine.
3. Plug each extension cord into separate circuits. To verify that you are using two separate circuits, the "Separate Circuit Indicator light" should glow green immediately without activating any switches. (Figure 2)

⚠ CAUTION: To prevent a circuit overload the indicator light must be on. Do not activate the heater switch if the indicator light is not on.

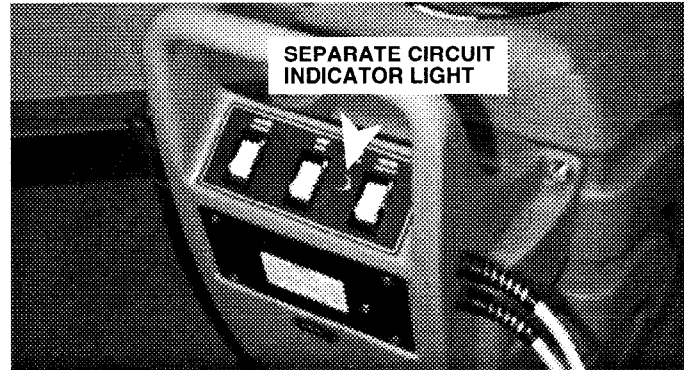
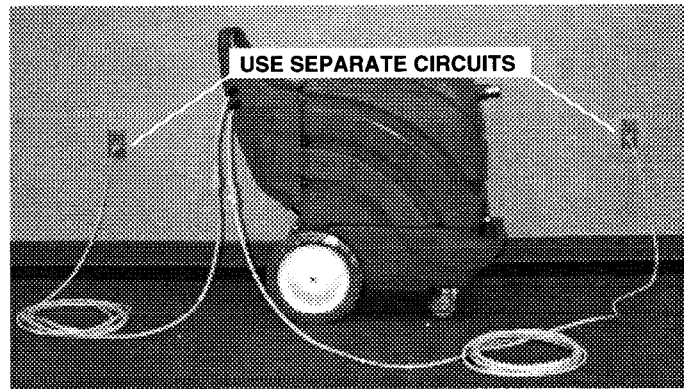


Fig. 2

⚠ WARNING: Plug power cords into grounded outlets only. Do not use an adapter or remove ground pin on plug. Do not use if cord is damaged. (Figure 3)

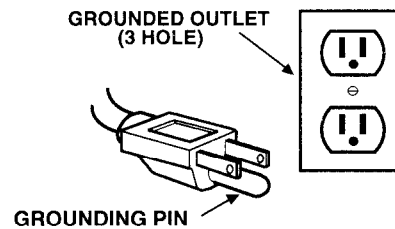


Fig. 3

4. Attach vacuum and solution hoses to front of machine and then to accessory tool. (Figure 4)

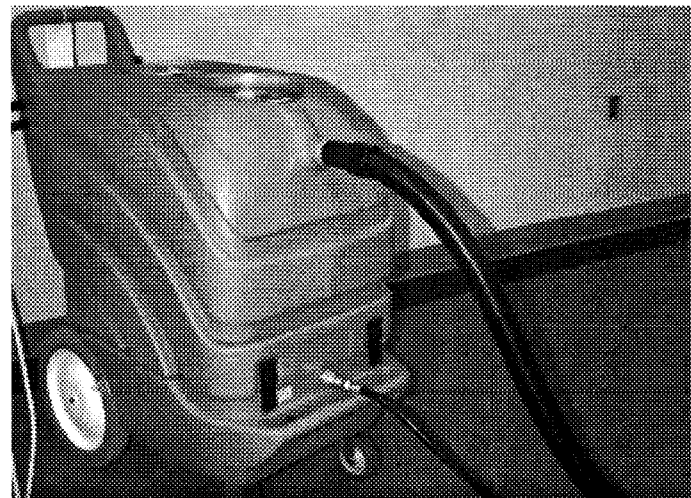


Fig. 4

OPERATING FLOOR TOOL

FOR SAFETY:

- Do not operate where explosive vapors or dust are present in the air.
- Do not pickup flammable liquids.
- Disconnect power if machine is left unattended.

NOTE: Vacuum carpet before cleaning.

1. Perform Machine Setup instructions.
2. Activate the "VACUUM", "PUMP" and "HEATER" switches.

▲ CAUTION: To prevent a circuit overload the indicator light must be on. Do not activate the heater switch if the indicator light is not on.

3. Place floor tool so bottom of stainless steel shoes are parallel to floor. Squeeze trigger and apply downward pressure on floor tool head and slowly pull tool backwards using both hands. Release trigger 6 inches from end of stroke. (Figure 5)

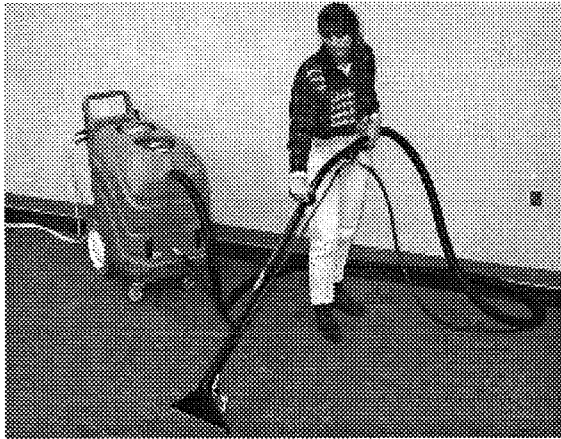


Fig. 5

4. Push floor tool forward over same path with trigger released when returning for next stroke. Continue this pull and push method with a slight overlap of each stroke.

NOTE: For heavily soiled areas, repeat stroke or change angle of stroke.

▲ CAUTION: Do not allow water or foam to enter vacuum screen. Ball float will not stop foam intake and vacuum motor damage will result (not covered by warranty). If foam develops, remove rear clear lid and pour 1 oz. of anti-foam solution into recovery tank.

5. When finished cleaning, turn off switches and drain recovery tank. (See **DRAINING RECOVERY TANK**)
6. Disconnect solution and vacuum hoses from machine and neatly coil hoses for storing.

▲ WARNING: Relieve water pressure from tool before disconnecting hose. Squeeze trigger for five seconds after turning off switches.

OPERATING HAND TOOL:

FOR SAFETY:

- Do not operate where explosive vapors or dust are present in the air.
- Do not pickup flammable liquids.
- Disconnect power if machine is left unattended.

NOTE: This machine 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 in furniture by manufacturer for further instructions. Extra caution should be taken with furniture that has been reupholstered. Any material under new upholstery may bleed and discolor new fabric.

NOTE: Vacuum upholstery before cleaning.

1. Perform Machine Setup instructions.
2. **TEST FABRIC FOR COLORFASTNESS:** Pour a small amount of cleaning solution on a white cloth. Hold damp portion of cloth against an area of upholstery which is hidden from view. Hold it there for 60 seconds. If no color transfers to cloth, it should be safe to clean. However, always use your best judgement.
3. Activate the "VACUUM", "PUMP" and "HEATER" switches.

▲ CAUTION: To prevent a circuit overload the indicator light must be on. Do not activate the heater switch if the indicator light is not on.

4. Begin cleaning by squeezing hand tool trigger and pulling tool backwards. (Figure 6)



Fig. 6

NOTE: Be careful not to over wet upholstery. Overlap your strokes to avoid streaking. Go over clean areas again using only vacuum to get fabric as dry as possible.

5. When finished cleaning, drain recovery tank and rinse tank thoroughly. (See **DRAINING RECOVERY TANK**)
6. Disconnect solution and vacuum hoses from machine and neatly coil hoses for storing.

⚠ WARNING: Relieve water pressure from tool before disconnecting hose. Squeeze trigger for five seconds after turning off switches.

DRAINING RECOVERY TANK

NOTE: When clean water bladder is empty, recovery tank must be emptied.

⚠ WARNING: Disconnect power cord before draining recovery tank.

1. Turn OFF all switches.
2. Remove drain hose from holder, position hose over floor drain and twist off knob to drain. (Figure 7)

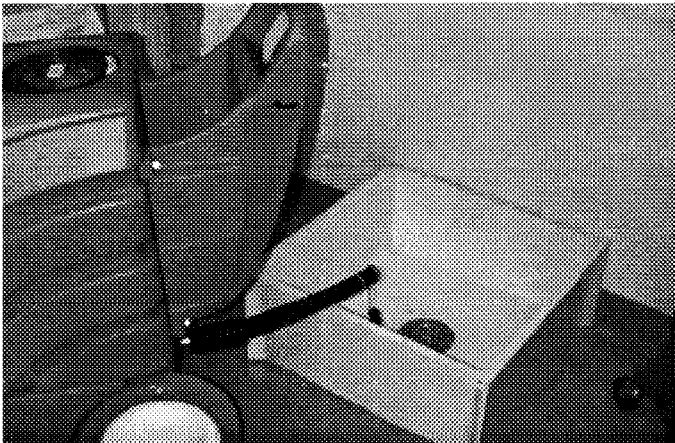


Fig. 7

⚠ CAUTION: If using bucket to drain machine, do not use same bucket for filling clean water bladder.

3. Replace knob tightly before cleaning again.
4. After final draining, remove rear clear lid and rinse both tank and shut-off float screen thoroughly to prevent odor buildup.

DRAINING SOLUTION TANK

1. To drain remaining solution from solution tank. Disconnect solution hose and attach bleeder hose. Relieve water pressure from tool before disconnecting hose. Squeeze trigger for five seconds after turning off switches. (bleeder hose supplied with machine).
2. Activate "PUMP" switch. Pump solution into a empty bucket. (Figure 8)



Fig. 8

3. Rinse solution tank with clean water to prevent odor buildup. Run vacuum motor for 30 seconds to discharge any moisture. Store extractor with covers off to promote air circulation.

MAINTENANCE:

⚠ WARNING To avoid serious personal injury: Disconnect power before servicing. Repairs must be performed by authorized personnel.

To keep machine in good working condition, simply follow machines daily, weekly and monthly maintenance procedures.

For ease of servicing, machine tank is hinged to pivot away from chassis to allow access to inner components. To open extractor for servicing, follow these steps:

- a. Unplug extractor.
- b. Unlatch front two latches.
- c. Lift tank upward, away from chassis. (Figure 9)

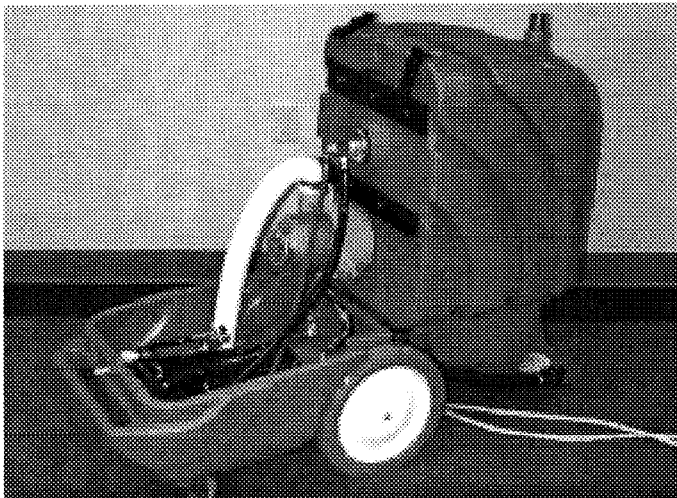


Fig. 9

DAILY MAINTENANCE:

1. Clean machine with a nonabrasive, nonsolvent cleaner.
2. Rinse out tanks and shut-off float screen thoroughly.
3. Remove any lint buildup from shut-off float screen. (Figure 10)



Fig. 10

4. Remove and rinse bladder tank screen.
5. Check power cord for damage, replace if necessary. Coil cord neatly after each use.
6. Remove any lodged debris from floor tool. (Use a coat hanger).
7. Check spray pattern for clogged spray tips.

WEEKLY MAINTENANCE:

1. Remove and soak spray tips in an acetic acid solution.

NOTE: Do not use pins, paper clips, etc., to unplug spray tips. This will damage spray tips.

2. **Flush pump system:** Use an acetic acid solution to dissolve normal alkaline chemical buildup. Follow steps below:
 - a. Mix two cups (16 oz.) of an acetic acid solution in clean water bladder with two gallons of hot water (140° F, 60° C maximum).
 - b. Place a bucket under spray jets to catch spray.
 - c. Turn on "PUMP" switch.
 - d. Squeeze trigger on tool for 30 seconds.
 - e. Allow solution to remain in system for up to 6 hours in above freezing temperatures.
 - f. Later, spray out acetic acid solution into a drain. Then run three gallons of clean water through system to flush out impurities.
3. Check Floor tool for loose shoes. If loose, tap with rubber mallet.
4. Inspect vacuum hose for holes and loose cuffs.

MONTHLY MAINTENANCE

1. Inspect cord grip for damage. Replace if damaged. Neatly coil cord after each use.
2. Inspect tank for cracks.
3. Lubricate casters with a water resistance grease.

EVERY 250 HOURS OF OPERATION

Check vacuum motor for carbon brush wear. Replace brushes when worn to a length of 3/8" or less.

STORING MACHINE

Store extractor with clear lids off to promote air circulation.

⚠ WARNING: DO NOT ALLOW MACHINE TO FREEZE WITH WATER IN PUMP SYSTEM. This can crack internal parts and cause damage, which is not covered by warranty. To avoid damage, run pump dry before exposing the machine to freezing temperatures.

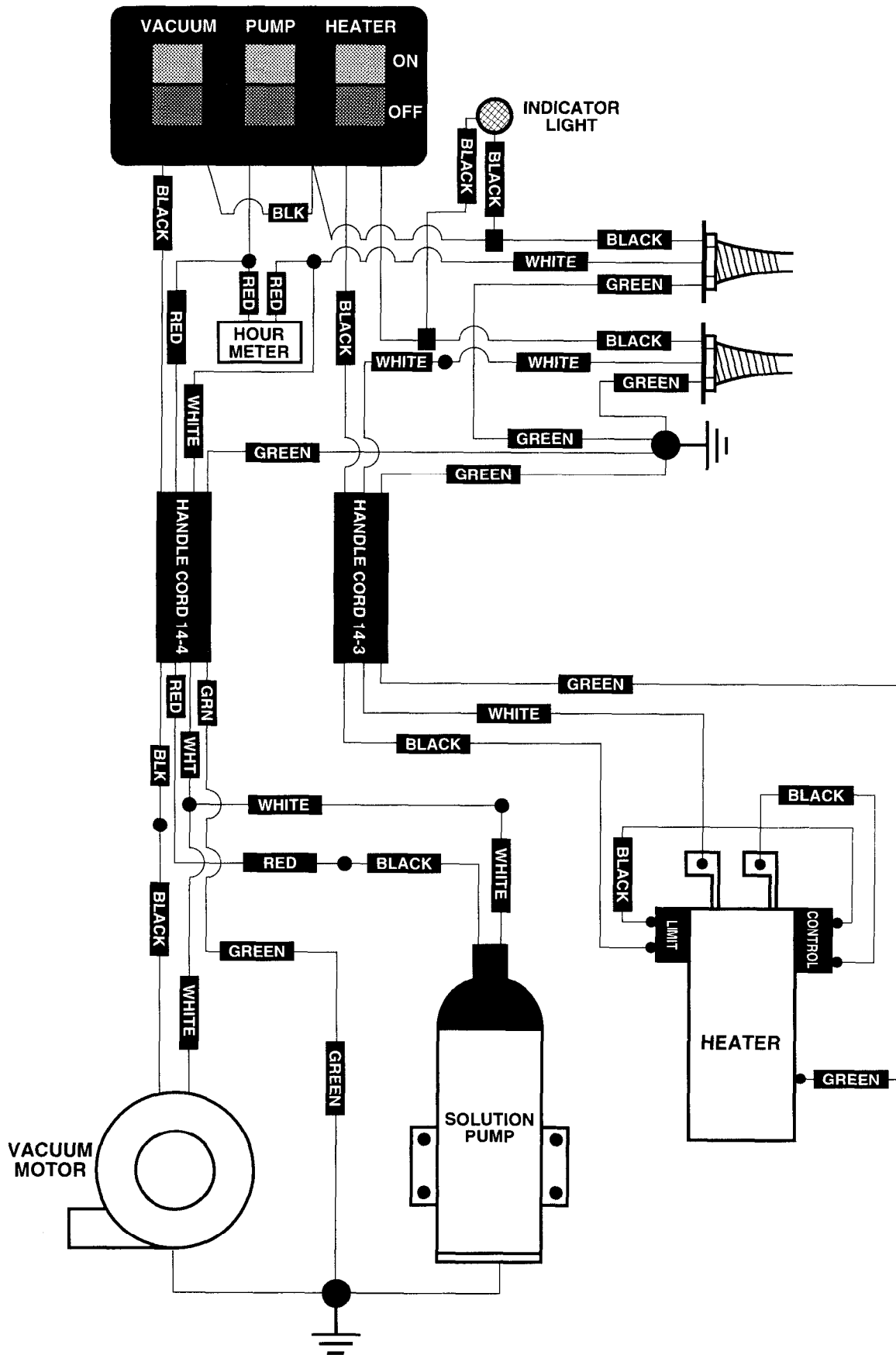
STORING MACHINE IN FREEZING TEMPERATURES: be certain that machine, pump and spraying system are completely drained and dry. Pour undiluted antifreeze into clean water bladder and follow flush pump system instructions from above.

⚠ WARNING: Do not expose to rain. Store indoors.

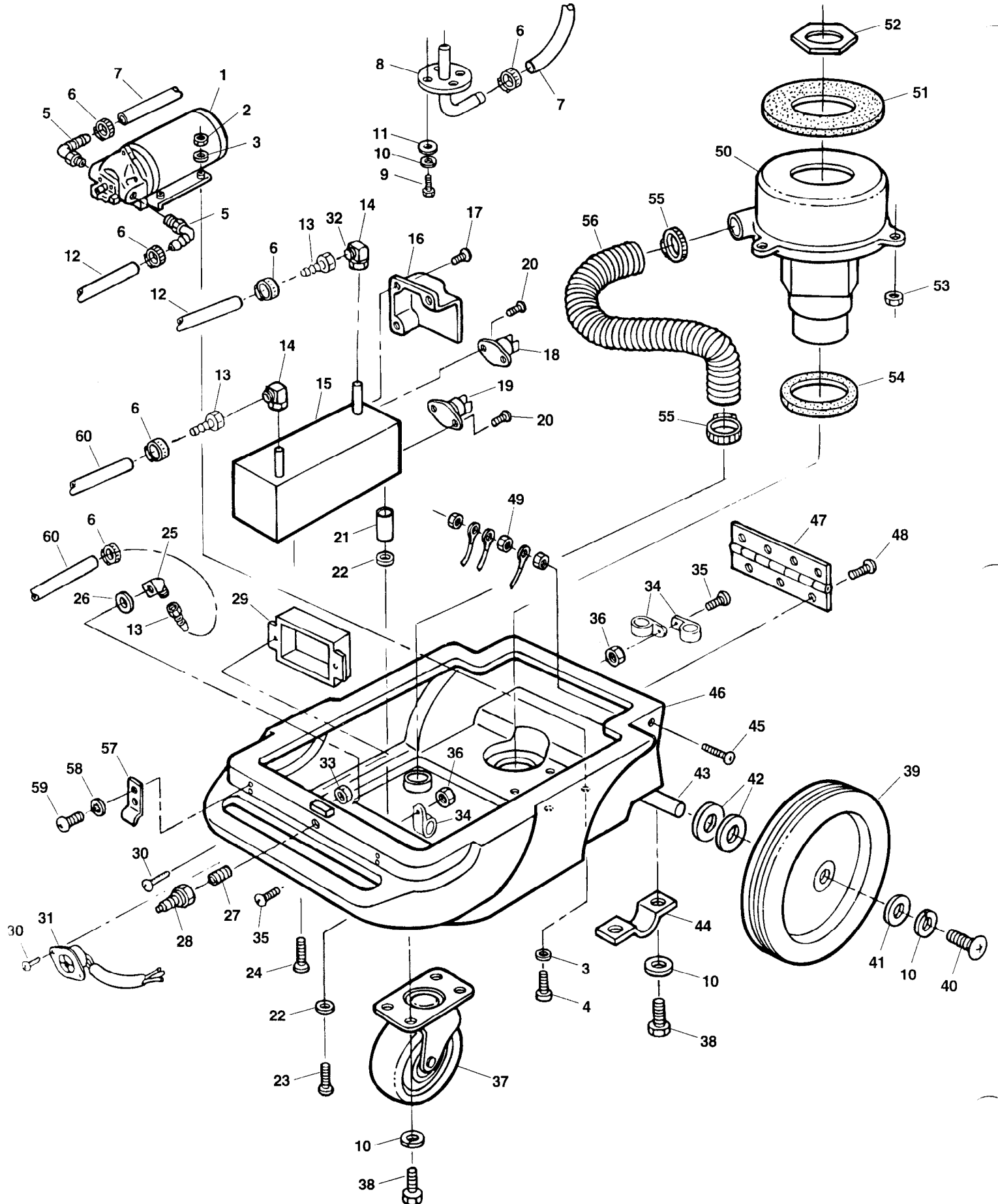
TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Uneven or no spray from jets.	1. Dirty or plugged spray tips.	1. Clean or replace spray tips.
	2. Improper spray tip size spray angle.	2. Replace with proper tips. Also check alignment of spray tips so they spray in a straight line.
	3. Worn spray jets.	3. Replace spray jets.
Leaking floor tool.	1. Quick coupler on floor tool faulty.	1. Replace quick coupler.
	2. Flow control valve leaking.	2. Install valve rebuild kit.
	3. Hose split or fittings loose.	3. Replace hose and tighten fittings.
	4. Quick coupler and plug not fully engaged.	4. Reinsert quick coupler.
	5. Valve stem worn.	5. Replace flow control valve.
Solution pump will not run.	1. Fuse blown or circuit breaker tripped in building.	1. Replace fuse or reset breaker.
	2. Faulty pump switch.	2. Replace faulty switch.
	3. Loose wiring to solution pump.	3. Consult wiring diagram and repair the wire.
	4. Faulty solution pump motor.	4. Replace solution pump motor.
Poor or no vacuum suction.	1. Fuse blown or circuit breaker tripped in building.	1. Find out if other appliances are plugged into same circuit. Replace fuse or reset breaker. Plug extractor into a less heavily loaded circuit.
	2. Faulty vacuum switch.	2. Replace faulty switch.
	3. Drain hose plug is open or loose.	3. Plug drain hose tighten.
	4. Lint is clogging float shutoff screen.	4. Remove recovery cover and clean lint off screen.
	5. Air is leaking around clear cover lids.	5. Tighten tank covers.
	6. Vacuum hose is loose.	6. Push hose firmly onto recovery tool and onto front of extractor.
	7. Holes in vacuum hose or hose cuffs loose on the hose.	7. Replace hose or thread cuffs securely onto hose.
	8. Faulty vacuum motor.	8. Replace vacuum motor.
	9. Faulty vacuum gasket.	9. Replace gasket.
	10. Float shutoff activated.	10. Turn off vac, empty tank.
Water not heating.	1. Thermostat failed.	1. Replace Thermostat.
	2. Loose wires to heater.	2. Consult wiring diagram and repair.
	3. Limit Thermostat breaker tripped or has failed.	3. Reset Limit Thermostat or replace.

120 VOLT WIRING DIAGRAM



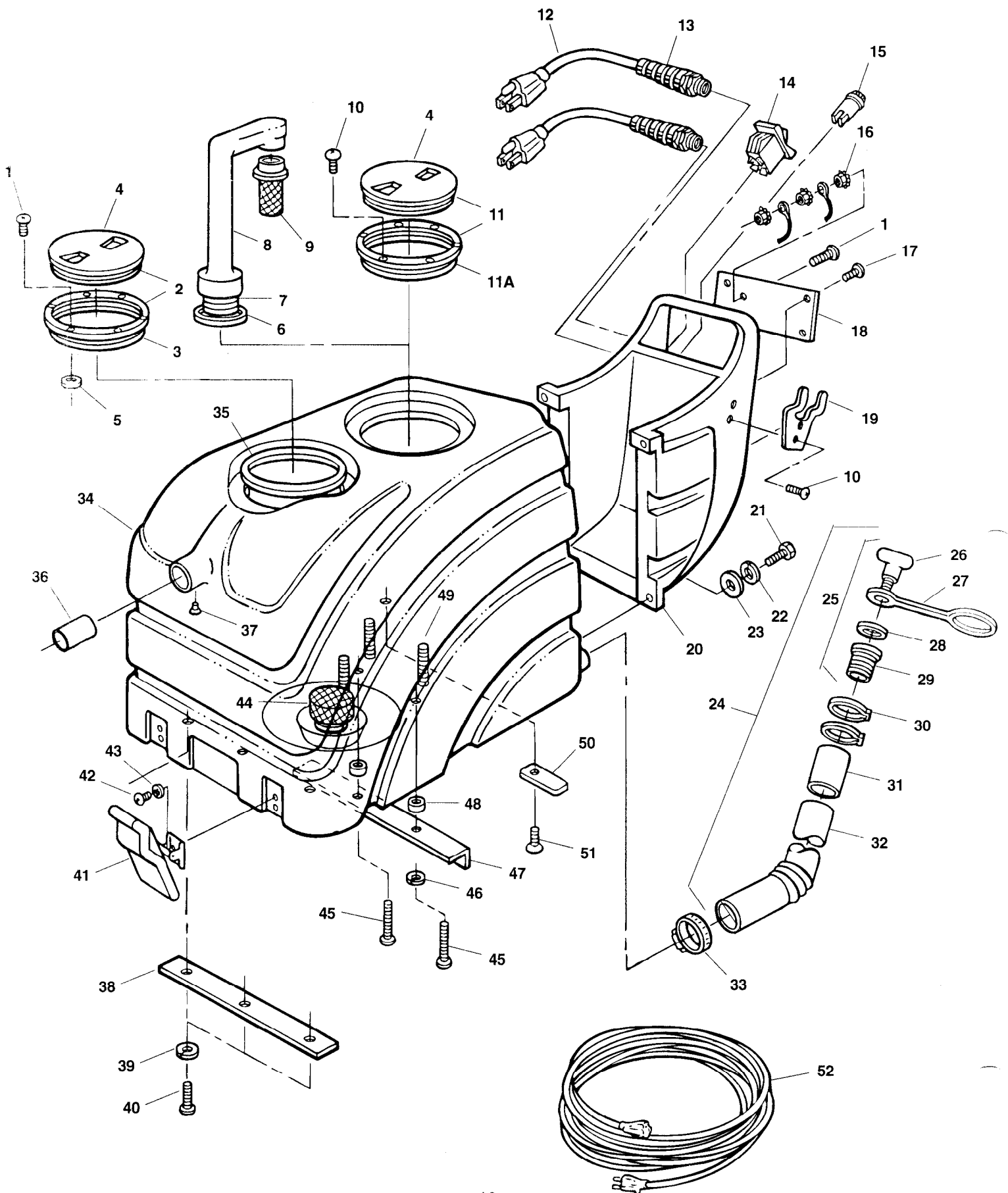
LOWER HOUSING PARTS



LOWER HOUSING PARTS

ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	PUMP, 100 PSI - 120V	180103	1	31.	RECEPTACLE, TWIST LOCK	130608	1
2.	NUT, KEP 10 - 24	140519	4	32.	NIPPLE	600546	2
3.	WASHER, FLAT 3/16	140011	8	33.	NUT, 6 - 32 NYLOCK	28675	2
4.	SCREW, 10 - 24 X 1-1/4	140899	4	34.	CLAMP, 5/16" NYLON	140304	3
5.	ELBOW, 3/8M X 3/8H 90° NYLON	150412	2	35.	SCREW, 10 - 24 X 3/4"	140900	2
6.	CLAMP, HOSE 5/16 - 7/8"	140310	4	36.	NUT, 10 - 24 NYLOCK	140552	2
7.	HOSE, 3/8 LP GRAY - BULK	160207	4.0 FT	37.	CASTER, SWIVEL 4"	103065	2
8.	PLATE, BLADDER	600452	1	38.	SCREW, 1/4 - 20 X 5/8 - S/S	140259	12
9.	SCREW, 1/4 - 20 X 3/4	140554	4	39.	WHEEL	103009	2
10.	WASHER, LOCK 1/4"	140016	14	40.	SCREW, 1/4 - 20 X 1/2	140885	7
11.	WASHER, FLAT	140000	4	41.	WASHER, FLAT 1/4"	140000	8
12.	HOSE, 3/8 LP	160207	1.1 FT	42.	WASHER, FLAT	140045	4
13.	HOSEBARB	150511	2	43.	AXLE, 18"	230907	1
14.	ELBOW	600545	2	44.	BRACKET, AXLE OFFSET	230746	2
15.	HEATER, 120V	180440	1	45.	SCREW, 10 - 24 X 1	140804	1
	HEATER, 230V	180441	1	46.	CHASSIS, (BLUE)	100458	1
16.	COVER, HEATER	101288	1	47.	HINGE	230390	1
17.	SCREW, 10-24 X 3/8"	140837	3	48.	SCREW, 1/4 - 20 X 1/2	140885	2
18.	THERMOSTAT, CONTROL	130692	1	49.	NUT, KEP 10 - 24	140519	3
19.	THERMOSTAT, LIMIT	130693	1	50.	MOTOR, VAC 5.7/3 STG, 120V	130996	1
20.	SCREW, 8 - 32 X 3/8"	6032.6	4	51.	GASKET, VAC MOTOR	100038	1
21.	SPACER	140918	2	52.	NUT, FLANGED METAL 1 - 1/2 FPT	210240	1
22.	WASHER, FLAT 3/16"	140011	4	53.	NUT, LOCK NYLON INSERT 1/4	140501	3
23.	SCREW, 10 - 24 X 1-3/4	140869	2	54.	GASKET, VAC MOTOR INTAKE	100118	1
24.	SCREW, 10 - 24 X 5/8"	140823	2	55.	CLAMP, HOSE 1-5/16" TO 2-1/4"	140308	2
25.	ELBOW, STRT 1/4" X 90°	150406	1	56.	HOSE 2" X 24" WHITE	160629	1
26.	WASHER, WAND .543 X .875 X .062	140058	1	57.	LATCH, HOOD RUBBER (COMPLETE)	140932	2
27.	NIPPLE, 1/4 CLOSE - BRASS	150615	1	58.	WASHER, INT LOCK TOOTH #8	140023	8
28.	PLUG, COUPLER, SER 60	150933	1	59.	SCREW, 8 - 32 X 3/8"	140801	8
29.	COVER, RECEPTACLE	130696	1	60.	HOSE, 3/8 LP	160207	1.0 FT
30.	SCREW, 6 - 32 X 5/8"	140831	4		HOSE, BLEEDER (NOT SHOWN)	700141	1

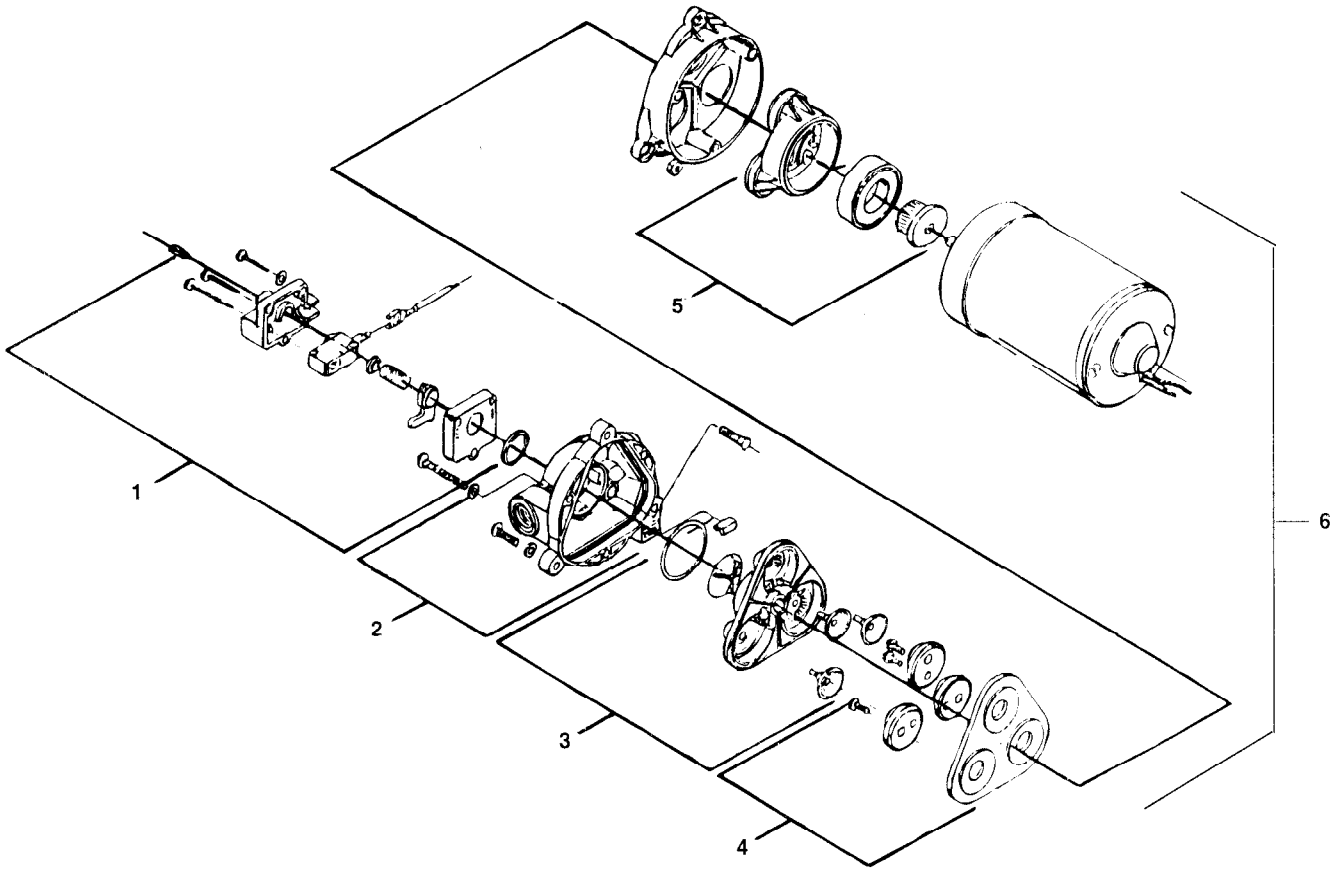
UPPER HOUSING PARTS



UPPER HOUSING PARTS

ITEM #	DESCRIPTION	PART #	QTY.	ITEM #	DESCRIPTION	PART #	QTY.
1.	SCREW, 10 - 24 X 3/4	140900	7	33.	CLAMP, HOSE	140307	1
2.	▼ ASM., LID	100103	1	34.	TANK, RECOVERY (BLUE)	101396	1
3.	▲ LID, OUTER RING	100109	1	35.	BLADDER	101398	1
4.	▲ LID, CENTER	100105	1	36.	TUBE, INLET	230905	1
5.	WASHER, FLAT 1/4"	140000	6	37.	RIVET, POP	140713	1
6.	GASKET	101714	1	38.	BRACE, TANK	230946	1
7.	NIPPLE, 1 1/2" PVC	230187	1	39.	WASHER, LOCK 1/4"	140016	4
8.	STANDPIPE	101255	1	40.	SCREW, 1/4" 20 X 3/4	140554	3
9.	FLOAT, SHUT-OFF	180613	1	41.	LATCH, RUBBER (COMPLETE)	140932	2
10.	SCREW, #6 X 1/2"	140825	8	42.	SCREW, 8 - 32 X 3/8	140801	8
11.	ASM., LID	100102	1	43.	WASHER, INT LOCK #8	140023	8
11A.	LID, OUTER RING	600812	1	44.	SCREEN, CLEAN WATER TANK	180628	1
12.	CORD, 14/3 X 20" YLW	130227	2	45.	SCREW, 1/4 - 20 X 1	140208	2
13.	CORD GRIP	130166	2	46.	WASHER	140016	2
14.	SWITCH, ON/OFF	19417	3	47.	BRACKET, TANK SUPPORT	230846	1
15.	LIGHT, INDICATOR - GREEN	130691	1	48.	SPACER	140134	2
16.	NUT, KEP 10 - 24	140519	3	49.	STUD	140258	3
17.	SCREW, 10 - 24 X 3/8"	140837	4	50.	PLATE, CORD CLAMP	230845	1
18.	PLATE, REAR	230908.BK	1	51.	SCREW, 1/4-20X5/8	140834	1
19.	BRACKET, DRAIN HOSE	230696.BK	1	52.	CORD, EXTENTION 14/3X25'	130694	2
20.	HANDLE, HOUSING (BLUE)	101285	1	DECAL PARTS LIST (NOT SHOWN)			
21.	SCREW, 3/8 X 1 - 1/2	140231	4	DESCRIPTION			
22.	WASHER, LOCK 3/8"	140017	4	PART # QTY.			
23.	WASHER, FLAT 3/8"	140028	4	DECAL, DASH	120189	1	
24.	▼ ASM., DRAIN HOSE	190965	1	DECAL, "WARNING EXTRACTOR..."	120619	1	
25.	▲ ▼ ASM., DRAIN PLUG	701061	1	DECAL, "IMPORTANT DRAIN..."	120906	1	
26.	▲ KNOB, DRAIN HOSE	230831	1	DECAL, "IMPORTANT ALWAYS CLOSE..."	120907	2	
27.	▲ STRAP, RUBBER	230882	1	DECAL, "USE BLEEDER HOSE..."	120190	1	
28.	▲ WASHER	140056	1	DECAL, SIDELINE R.H.	602611	1	
29.	▲ PLUG	140955	1	DECAL, SIDELINE L.H.	602612	1	
30.	▲ CLAMP, EAR 1 - 9/16"	140317	2	DECAL, "CASTEX"	120101	2	
31.	▲ SLEEVE, DRAIN HOSE	140921	1	DECAL, RESTORATIVE	120098	1	
32.	▲ HOSE, DRAIN	160627	1				

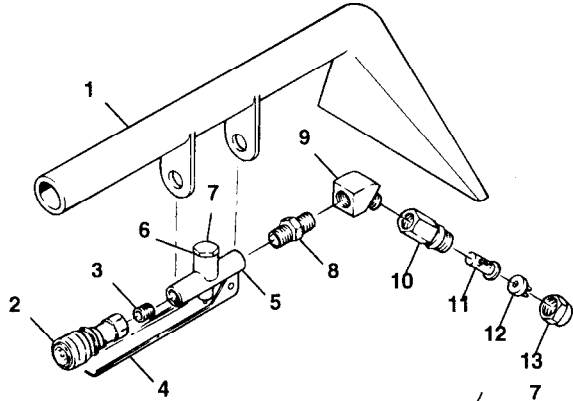
SOLUTION PUMP PARTS



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

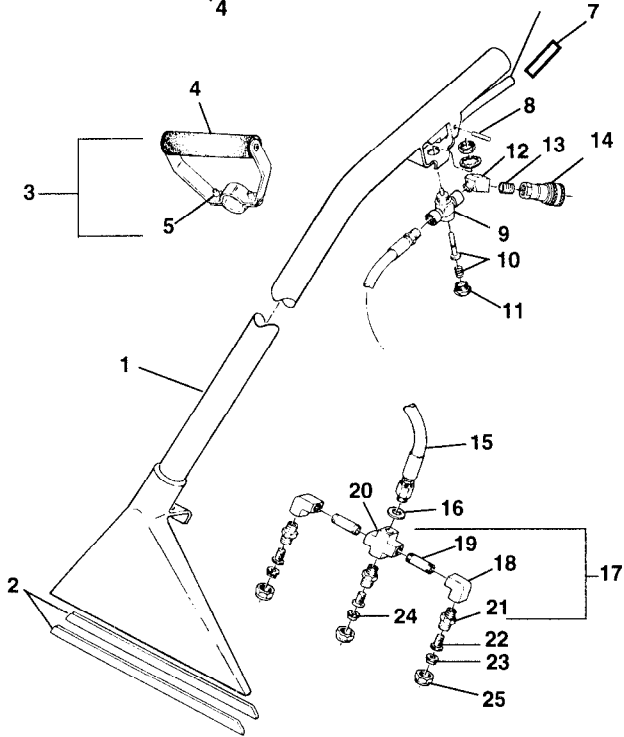
OPTIONAL ACCESSORY PARTS

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

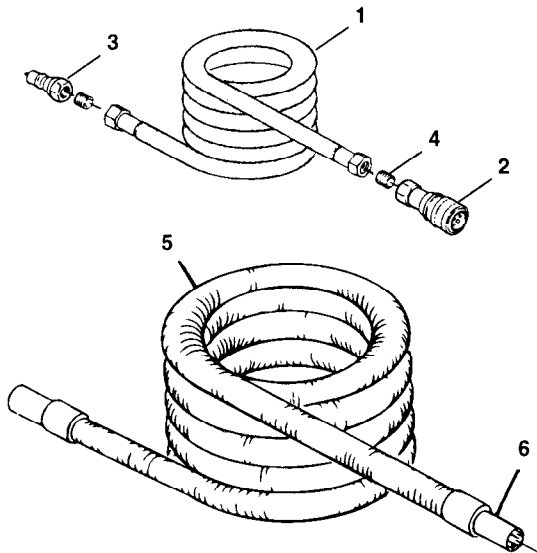
FLOOR TOOL #600048



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	200910	1
5.	SCREW, 1/4X3/4	140210	2
6.	TRIGGER, FLOOR TOOL	200902	1
7.	SLEEVE, TRIGGER	200809	1
8.	PIN	140605	1
9.	NUT, PUSH	140520	2
10.	VALVE, FLOW CONTROL	210150	1
11.	KIT, VALVE PIN & SPRING	190603	1
12.	CAP, HEX, VALVE	N/A	1
13.	ELBOW, 1/4-45°	150403	1
14.	COUPLER, QUICK SER. 60	150913	1
15.	HOSE, 1/4 HP W/ SWEDGE	160170	1
16.	WASHER	140058	1
17.	▼ASM., SPRAY BAR	700062	1
18.	▲ELBOW, 90° 1/4FX1/4F	150401	2
19.	▲NIPPLE	150600	2
20.	▲CROSS	150700	1
21.	▲SPRAY BODY	200993	3
22.	SCREEN, SPRAY BODY	200996	3
23.	TIP, SPRAY (#9502)	200986	2
24.	TIP, SPRAY (#11002)	200988	1
25.	CAP, SPRAY BODY	200994	3

▼ = ASSEMBLY

▲ = ITEMS INCLUDED IN ASSEMBLY



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"	160403	2