



WINDSOR INDUSTRIES, INC.
Denver, Colorado 80223

INSTRUCTION MANUAL AND PARTS LIST

INSPECTION

Carefully unpack and inspect your PILEMASTER for shipping damage. Each unit is operated and thoroughly inspected before shipment, and any damage is the responsibility of the carrier, who should be notified immediately.

EXTRACTOR REQUIREMENTS

The PILEMASTER can be operated with all MR. STEAM hot water soil extractors. If used with other machines, the extraction unit pump must produce a minimum of 25 psi. pressure and the vacuum system produce a minimum of 90" water lift and move 101 cubic feet of air per minute.

ELECTRICAL

The PILEMASTER brush floor tool operates on a standard 15 amp., 115 volt AC. household circuit.* Voltages below 105 volts, or above 125 volts could cause serious damage to the unit.

*220-240 volt 50 hertz model available.

GROUNDING INSTRUCTIONS

To protect the operator from electric shock, this machine must be grounded while in use. The machine is equipped with an approved three-conductor power cord and three-prong grounding type plug to fit the proper grounding type receptacle.

CAUTION: Be sure machine is properly grounded.

WARNING: To avoid electric shock do not expose to rain — store indoors.

EXTENSION CORDS

If an extension cord is used, the wire size must be at least one size larger than the power cord from the machine.

OPERATION

There are no electrical connections on the PM-3 handle. Brush operation is controlled by a solution pressure switch in the base. When the solution

valve lever is depressed, the solution flow automatically starts brush drive motor and brush rotation. When solution valve lever is released, solution flow and brush drive motor stop simultaneously.

... To operate the brush only without solution spray (to spot scrub or fluff pile), use the auxiliary on/off switch located on base. In the "on" position, the machine will run until turned off.

WARNING: To prevent possible severe damage to the carpet, never let the PILEMASTER stand in one place with brush running.

USING PM-3 PILEMASTER WITH EXTRACTOR

1. Adjust the handle to a comfortable height. When pulled backward, the handle should not touch the adjustment pin forcing the vac shoe off the carpet.
2. Attach vacuum and solution hoses to PM-3.
3. Connect power cords to properly grounded outlet. To avoid overloading the circuit, use a separate circuit for the extractor.
4. Adjust brush height. A brush adjustment lever on the base adjusts the brush through three heights of high, medium, low. The high position is also used when storing machine. In general, use the high or medium setting so that the brush "whisks" the carpet fibers. Do not have the setting so low that it causes the machine to rapidly self propel itself. This will cause loss of cleaning action and premature wear on the brush.
5. Start in one corner. Depress solution valve lever fully and move backward at a steady pace — 25 or 30 feet per minute, cleaning a path at least half the length of the room.
6. Release solution valve lever approximately 6 inches before

reaching the end of the cleaning pass to insure that all solution is extracted.

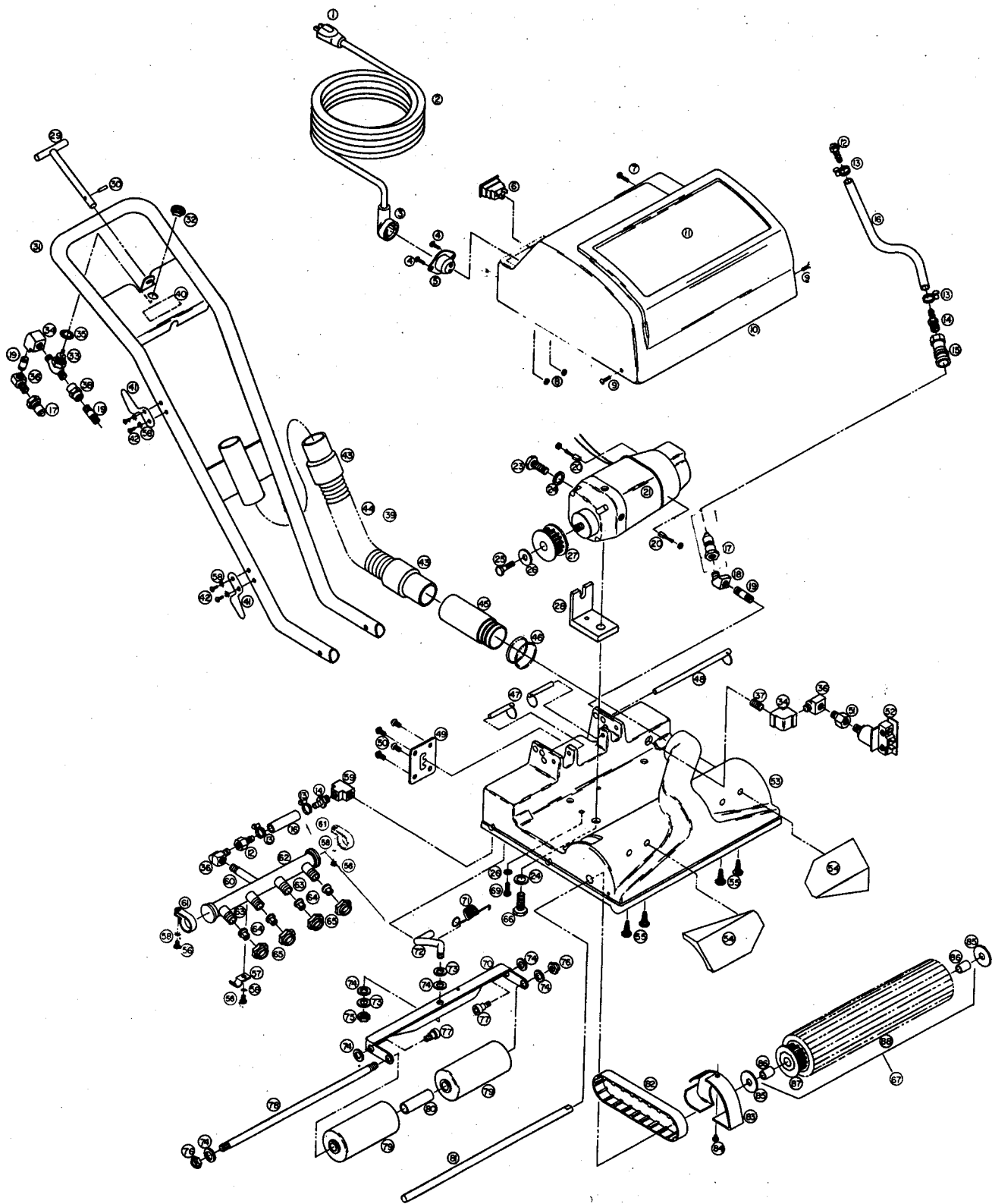
7. Make the next cleaning pass beside the first, overlapping about 1 inch.
8. Reverse direction and clean balance of room.

DAILY MAINTENANCE

1. Vacuum unused cleaning solution from solution tank into the recovery bucket.
2. Flush 2 gallons of clean water through pumping system of extractor and PILEMASTER. Twice a month, flush a white vinegar solution (one quart vinegar to two gallons water) or browning prevent solution (mixed as directed) through extractor and PM-3. This will prevent buildup of alkaline residue in the system.
3. Remove lint from brush fibers and underside of brush housing.
4. Apply silicone lubricant to quick disconnect fittings.
5. Check for lint buildup in vac shoe. Clean and flush with water.
6. If spray jets become clogged, remove from manifold, wash and blow dry to remove obstruction. Do not use pins, wire, etc. to clean jets as this could destroy spray pattern.
7. Check motor brushes after every 200 hours use. Replace when worn to one quarter inch.

PROTECT FROM FREEZING

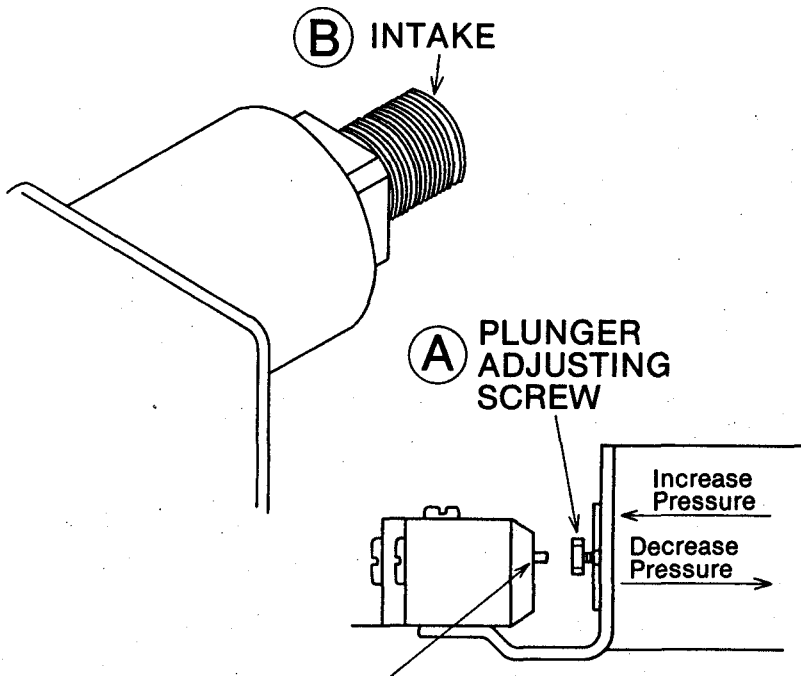
Remove ail solution from system before transporting or storing PILEMASTER in below freezing temperature. The solution can be easily removed from the PILEMASTER by depressing the plunger on the quick disconnect nipple and holding solution valve lever down. This allows solution to drain from valve and solution hose.



TO ADJUST AND TROUBLESHOOT PRESSURE SWITCH

Connect solution hose from extractor to PILEMASTER. Connect power cords from extractor and PILEMASTER to properly grounded outlet receptacle and turn on pump switch. Lay PILEMASTER on side to expose jet manifold. Depress solution valve lever: Brush drive motor should start as soon as solution sprays from manifold jets.

PROBLEM	SOLUTION
Solution sprays and motor runs with solution valve in "off" position.	Check solution valve for worn valve seat or "sticking" valve stem. (Repair or replace.)
Motor runs with solution valve in "off" position.	<ol style="list-style-type: none"> 1. Check plunger adjustment (Item A). Adjust plunger screw (decrease pressure 1/4 turn increments) until switch is deactivated and motor stops. 2. If problem is not corrected by adjusting plunger screw, remove pressure switch assembly and check to see if intake port is plugged with soap residue (Item B). A 5/32" drill bit can be used to clean intake port. CAUTION: Do not drill deeper than 7/8" to avoid damaging diaphragm.
Solution sprays but motor will not run.	<ol style="list-style-type: none"> 1. Check plunger adjustment (Item A). Adjust plunger screw (increase pressure 1/4 turn increments) until switch is activated and motor starts. 2. If problem is not corrected by adjusting plunger, proceed as noted in Step #2 above.



PM-3 FLOOR TOOL PARTS LISTING		
KEY	PART NO.	DESCRIPTION
1	21-027	Cord Cap 3-Wire
2	79-010	Power Cord Assy. 40 ft.
3	21-137	Cord End, Twist-Lok
4	33-210	Screw 6-32 x 1/2 PHMS Nylon Blk.
5	21-136	Connector Body, Twist-Lok
6	21-019	Rocker Switch
7	33-209	Screw, 1/4-20 x 1/2 PHMS Nylon Wht.
8	33-035	Hex Nut, 6-32
9	33-229	Screw, 10-24 x 1/2 FHMS
10	10-019DM	Cover, PM-3 Machined
11	63-031	Label, PM-3
12	55-280	Hosebarb, 1/4 FPT x 1/4 HB
13	55-196	Hoseclamp, 1/2 Dia.
14	55-230	Hosebarb, 1/4 MPT x 1/4 HB
15	55-194	Coupler, Quick Disc. 1/4 Spring Loaded
16	55-215	Nylobrade Hose 1/4 ID (3 1/2 ft. long)
17	55-192	Nipple, Quick Disc. Spring Loaded
18	55-258	St. El. 45° 1/4"
19	55-435	Nipple, 1/4 x 1 1/2
20	25-043	Brush Set for 25-041, 042
21	25-041	Drive Motor 120V
21-A	25-042	Drive Motor 220V
23	33-082	7/16-20 x 1/2 HHMS Cad. Pltd.
24	33-079	Washer, 7/16 Flat Cad. Pltd.
25	33-077	Screw 1/4-20 LHT
26	33-023	Washer, Flat
27	33-193PTD	Pulley, Motor
28	37-021	Motor Mount Bracket
29	37-216	Lever, Solution Valve
30	33-065	Roll Pin
31	37-204	Floor Tool Handle
32	33-060	Hex Nut, 1/2-24 Chrome Pltd.
33	55-315	Sol. Valve 1/4"
	55-295	Stem Assy. for 55-315
34	55-187	90° El. 1/4 FPT x 1/4 FPT
35	33-139	Lockwasher, 1/2" Internal Tooth
36	55-186	St. El., 90° 1/4"
37	55-256	Close Nipple, 1/4
38	55-188	Coupler 1/4"
39	81-040	FT Vac Hush Assy. (Includes Items 43 and 44)
40	63-128	Label, Brush Operation
41	33-078	Cord Hook, BFT Handle
42	33-050	Screw, #8 x 1/2 self-tapping
43	55-171	Hose Cuff 1 1/2
44	55-170	Hose 1 1/2
45	16-227MCHD	Vac Tube Clear
46	33-225	"O" Ring for 16-227
47	30-066	Fast Pin, 1/4 OD x 2 1/4
48	30-039	Fast Pin, 3/8 OD x 7
49	37-020	Adjustment Plate
50	33-214	Screw, 1/4-20 x 1/2 PHMS
51	55-275	Adaptor 1/4 MPT x 1/4 FPT
52	21-135	Switch, Pressure
53	39-008MCHD	BFT Casting Machined
54	37-122	Label, Washable (Cdn. Wash Only)
55	33-101	Screw # 14 Self-Tapping
56	33-121	Screw, 8-32 x 3/8 RHMS
57	33-216	Clamp, 5/8 Vinyl Dipped
58	33-056	Starwasher #8
59	55-272	Tee, 1/4 FPT x 1/4 FPT x 1/4 FPT
60	79-001	Manifold Assy. (Includes Items 62 and 63)
61	33-213	Manifold Clamp
62	16-224	Manifold
63	55-173	Nozzle Body
64	55-270	Tee Jet
65	55-174	Nozzle Cap
66	33-081	7/16 x 1 1/4 HHMS Cad Pltd.
67	79-002	Brush Assy. (Includes Items 86, 87 and 88)
69	33-254-A	Screw, 1/4-20 x 3/4
70	37-009	Wheel BKT
71	33-220	Spring, Adjustment
72	37-012	Adjustment Handle
73	33-202	Washer, 5/16 ID x 3/4 OD Flat
74	33-205	Washer, 3/8 ID x 3/4 OD Teflon Flat
75	33-033	Locknut, 1/4-20
76	33-147	Locknut, 3/8-16
77	33-203	Socket Head Shoulder Bolt
78	37-196	Axle, 3/8 Dia. Wheel
79	30-003	Roller, 5 1/2 x 2 3/8
80	55-247	Spacer 3/8 ID x 2 3/8
81	37-195	Brush Shaft
82	25-061	Drive Belt
83	10-143MCHD	Lint Guard
84	33-121	Screw, 8-32 x 3/8 RHMS
85	33-207	Washer, Teflon 1/2 ID x 1 1/2 OD
86	33-231	Bearing
87	37-194PTD	Pulley, Brush
88	30-064	Brush

TROUBLESHOOTING CHART

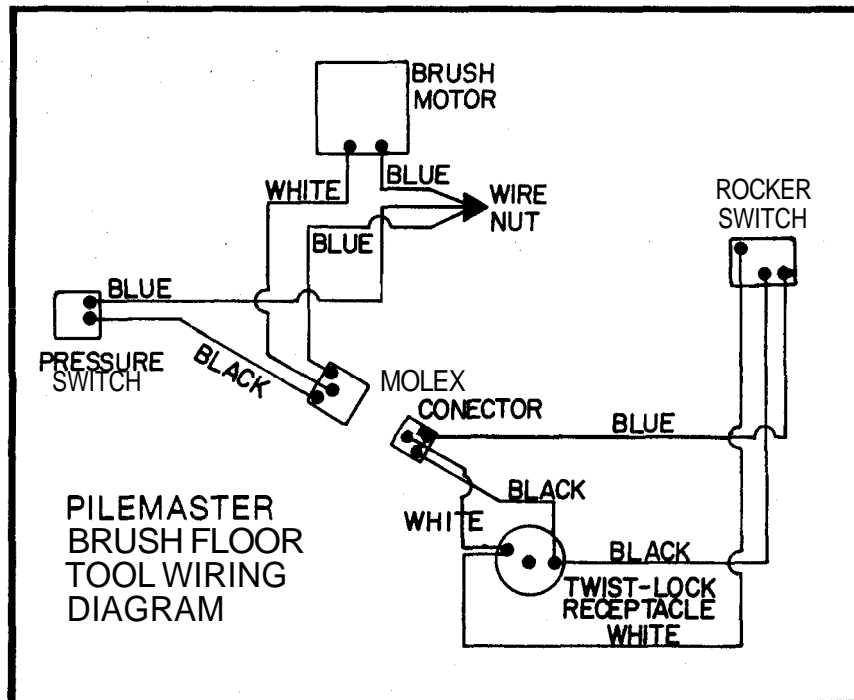
PROBLEM	POSSIBLE CAUSE	SOLUTION
No power to brush.	Dead electrical circuit. Faulty electrical cable.	Check building circuit breaker or fuse box. Replace.
Brush motor speed varies or doesn't run.	Motor brushes worn. Faulty pressure switch. No solution.	Replace. Repair or replace. Check level in solution tank.
Loss of vacuum.	Loose cuffs on vac hose. Vac chamber plugged. Clear plastic vac tube loose. Broken vac hose.	Tighten cuffs turning counterclockwise. Wash out with hose. Pick lint out with wire. Re-insert into head. Replace.
Solution hose quick disconnects hard to insert.	Corrosion on fittings.	Clean fittings with steel wool. Soak in vinegar solution. Lubricate slightly with silicon lube.
Solution won't shut off.	Faulty solution valve.	Repair or replace.
Clogged spray jets.	Corrosion.	Clean with steel wool and vinegar solution. Wipe dry after each use.
Not getting carpet clean.	Severe soil conditions.	Make more than one pass at right angle to first pass. Pre-spray.
Carpet too wet.	Loss of vacuum.	Check vac system for leaks.

LIMITED WARRANTY

WINDSOR warrants to the original purchaser/user that this product is unconditionally guaranteed free from defects in workmanship and materials under normal use and service for a period of one year. WINDSOR will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the Instruction Manual. This warranty does not apply to normal wear or to items whose life is dependent on their use and care.

This warranty is in lieu of all other warranties, expressed or implied, and releases WINDSOR, from all other obligations and liabilities. It is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. WINDSOR is not responsible for costs for repairs performed by persons other than those specifically authorized by WINDSOR. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of noncompatible chemicals, or damage or loss of income due to malfunctioning of the product.

If a difficulty develops with this product, you should contact the dealer from whom it was purchased.



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