

# ***PULLMAN-HOLT***

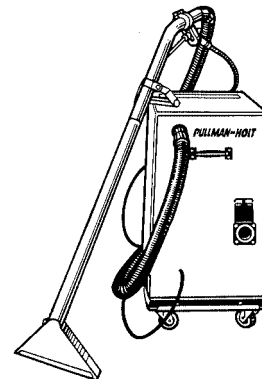
## ***Operation & Care Instructions***

*Save For Future Reference*

## **Portable Tank Extractor**

### **Model E1200**

This extractor is a high quality, precision made product. All parts used in the manufacturing of this extractor have passed rigid quality control standards prior to assembly, and an "each unit" final inspection prior to packaging is your assurance of proper assembly. This extractor was protectively packed to prevent possible damage in transit. Should damage occur, please notify the transporting carrier immediately for loss and/or claim.



## **IMPORTANT SAFEGUARDS**

Make sure the machine is plugged into an electrical outlet with the same voltage as shown on the switch plate of the machine. It is important to have the machine properly energized.

Disconnect power cord from the outlet before attempting maintenance or repair work. Do not leave machine connected to an electrical outlet when unattended.

Do not operate machine in standing water. Such use can cause electric shock.

Do not use volatile substances such as gasoline, kerosene, etc. in the machine or anywhere near the cleaning area. The use or presence of such materials could cause an explosion and fire.

If an extension cord is necessary, use a three conductor grounded cord, 12 gauge wire or heavier to prevent motor burnout and overheating of wire.

To avoid electric shock, do not expose to rain - store indoors.

Do not use the machine for dry vacuuming. The machine is not fitted with a fine dust filter. To use machine for dry vacuuming, request more information on a dry vacuum attachment.

Always use ball float filter (reusable vacuum filter) to protect vacuum motors.

In case of overfoaming, use defoamer in recovery tank to prevent damage to the vacuum motors.

Use only recommended carpet cleaning solutions and defoamer intended for machines of this type. Do not use dyes, bleaches, ammonia, or other additives. The use of powdered cleaning compounds, if not diluted or dissolved properly may damage the pump.

Do not expose machine to freezing temperatures, it could be damaged.

Only authorized repair shop or dealer should attempt repairs on any machine.

Do not use unauthorized replacement parts. Proper performance of the machine could be affected if substitutes are used.

### **WARNING**

The machine is designed for use on carpet, floor and upholstery extraction applications as per instruction and recommendations written in this manual. Any deviation from its proper use or purpose and the consequential damage that may occur is the sole responsibility of the end user.

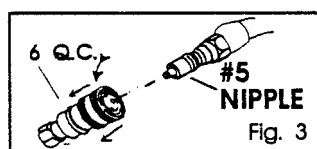
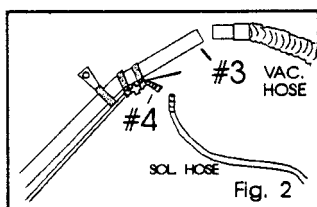
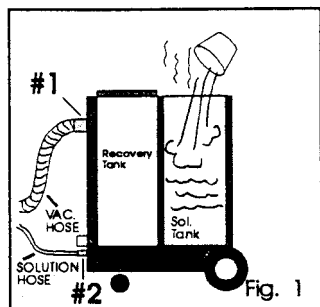
# Operating Procedures

## FIRST STEP:

Always thoroughly vacuum the surface to be steam-cleaned.

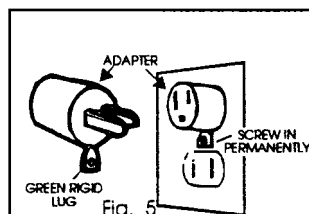
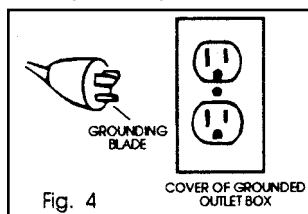
## MACHINE ASSEMBLY:

1. Connect vacuum hose to vacuum intake (#1) on the machine and to the wand (#3). Connect solution hose to the water output (solution hose connector) (#2) on the machine (Fig. 1) and to the quick connector on the wand (#4). (Fig. 2)



2. To reduce the possibility of electric shock, the machine is factory equipped with an approved three conductor cord and grounding plug. This plug is to be used only with proper grounding type (three prong) receptacles. (Fig. 4)

An adapter is available for connecting three prong type plugs to two prong receptacles. (Fig. 5) The green rigid lug extending from the adapter must be connected to a permanent grounding such as properly grounded outlet box. Do not break off or pull out the grounding blade.



## OPERATION:

### 3. Method A

Pre-spray the carpet with carpet cleaning solution.

Fill open tank (solution tank) with clean hot water (140 F. max.) (Fig. 1) (exception: use cool water for wool carpets)

### Method B

Fill open tank (solution tank) with clean hot water. Add 2 or 4 ounces of carpet cleaner per gallon of water or as needed.

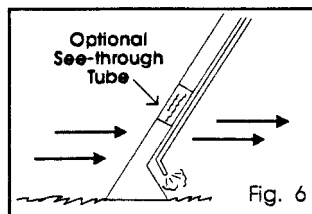
**IMPORTANT:** Make sure ball float filter (vacuum filter) is clean and in place at all times.

Use only recommended carpet cleaning solution intended for machines of this type. Do not use solvents, bleaches, ammonia, or other additives which can damage the machine and the carpet.

Use defoamer in recovery tank to prevent damage to vacuum motors.

Make sure the drain valve and recovery tank lid are closed before turning on vacuum and pump motor switches.

4. To clean, pull the wand over the carpet with solution control valve lever pressed. Press solution control valve lever only during pull strokes. (Fig. 6)



Release the solution control valve lever and pass the wand over the dampened area once or twice with either a pull or push stroke, or both. Repeat the process until the liquid does not appear to be passing through the wand.

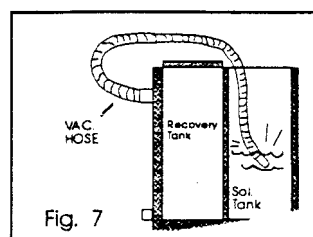
**NOTE:** The weight of the wand and the vacuum suction are sufficient to obtain satisfactory results. Additional physical pressure is unnecessary.

Continue cleaning until the clean water tank is empty and/or recovery tank is full. Turn off all switches and empty the recovery tank. The vacuum suction will be reduced if the recovery tank is full.

5. After recovery tank is drained, repeat steps 3 & 4.

## LAST STEP:

Turn off pump switch but leave the vacuum switch (s) on. Disconnect the vacuum hose and solution hose from the wand. Insert the vacuum hose into the clean water tank and vacuum out the excess water. (Fig. 7) Drain and thoroughly clean the recovery tank.



Make sure the ball float cage and vacuum filter have been rinsed thoroughly while it's still wet.

Remove dirt and lint build-up inside the recovery tank, rinse with running water. Make sure debris does not become lodged in between the rubber gaskets on the drain valve.

Pump clean water through pump to protect unit from freezing.

Wrap power cord around cord-winder or handle.

Check for any loose parts on the machine, if loose, tighten them.

Never use solution tank as storage, machine can be damaged.

# TROUBLE SHOOTING GUIDE

Symptom	Possible Cause(s)	Corrective Action
<b>ELECTRICAL SYSTEM</b>		
No electrical power	<ol style="list-style-type: none"> <li>1) Check the outlet &amp; the plug</li> <li>2) Damaged cord</li> <li>3) Circuit breaker off or fuse blown</li> </ol>	<ol style="list-style-type: none"> <li>1) Plug in properly</li> <li>2) See authorized service center</li> <li>3) Turn circuit breaker on or replace fuse. Unplug any equipment using the same circuit.</li> </ol>
Switch is turned on, power is intermittent to all motors	<ol style="list-style-type: none"> <li>1) Faulty electrical cable</li> <li>2) Defective switch</li> <li>3) Loose terminal or corroded connector</li> </ol>	<ol style="list-style-type: none"> <li>1) See authorized service center</li> <li>2) See authorized service center</li> <li>3) See authorized service center</li> </ol>
Electrical shock	<ol style="list-style-type: none"> <li>1) Equipment not grounded</li> </ol>	<ol style="list-style-type: none"> <li>1) Check outlet for proper grounding. See authorized service center</li> </ol>
<b>VACUUM SYSTEM</b>		
Vacuum motor on, little or no vacuum on suction head (wand) or upholstery tool.	<ol style="list-style-type: none"> <li>1) Lid is not closed</li> <li>2) Drain valve not closed</li> <li>3) Hose or wand clogged</li> <li>4) Accumulated dirt on the ball float cage and filter</li> <li>5) Worn out lid gasket</li> <li>6) Lint and dirt build-up in wand</li> <li>7) Damaged vacuum hose</li> <li>8) Loose or no vacuum hose connection inside the machine</li> <li>9) Lint accumulation in vacuum fans</li> </ol>	<ol style="list-style-type: none"> <li>1) Close the lid</li> <li>2) Push drain valve handle down</li> <li>3) Clean</li> <li>4) Clean or replace the filter</li> <li>5) Replace the gasket</li> <li>6) Clean the wand</li> <li>7) Replace</li> <li>8) See authorized service center</li> <li>9) See authorized service center</li> </ol>
Vacuum motor runs intermittently		<ol style="list-style-type: none"> <li>1) See authorized service center</li> </ol>
<b>PUMP SYSTEM</b>		
Pump motor stopped	<ol style="list-style-type: none"> <li>1) Pressure built up</li> <li>2) Thermal overload (overheated)</li> <li>3) Damaged motor or rectifier</li> <li>4) Pump switch defective</li> <li>5) Loose wire connection</li> <li>6) Pump pressure switch defective</li> <li>7) Faulty motor</li> </ol>	<ol style="list-style-type: none"> <li>1) Release pressure by opening up (press the lever on the wand)</li> <li>2) Turn off the switch and wait for the pump to cool down.</li> <li>3) See authorized service center</li> <li>4) See authorized service center</li> <li>5) See authorized service center</li> <li>6) See authorized service center</li> <li>7) See authorized service center</li> </ol>
Loss of pump pressure with wand valve open, and/or uneven or weak spray from the spray jet tip	<ol style="list-style-type: none"> <li>1) Clogged or dirty spray-tip</li> <li>2) Accumulated dirt in solution line</li> <li>3) Dirty or plugged filter screen</li> <li>4) Pump check valve worn or dirty</li> <li>5) Malfunction in the wand valve</li> <li>6) Hose quick connect bad or clogged with lint</li> </ol>	<ol style="list-style-type: none"> <li>1) Clean</li> <li>2) Clean</li> <li>3) Remove and clean or replace</li> <li>4) See authorized service center</li> <li>5) See authorized service center</li> <li>6) See authorized service center</li> </ol>
<b>OTHER PROBLEMS</b>		
No water from the jet	<ol style="list-style-type: none"> <li>1) Machine not plugged in (or circuit breaker blown)</li> <li>2) Switch is not on</li> <li>3) Empty solution tank</li> <li>4) The hose (s) not connected properly</li> </ol>	<ol style="list-style-type: none"> <li>1) Plug into proper sized outlet</li> <li>2) Turn the switch on</li> <li>3) Fill the solution tank with water</li> <li>4) Connect hose (s) properly (see pump problem section)</li> </ol>
Water or foam coming out of the exhaust	<ol style="list-style-type: none"> <li>1) Over foaming of water in recovery tank</li> <li>2) Elbow fitting in recovery tank pointing toward the ball-float cage</li> <li>3) No ball-float cage</li> <li>4) Too much water in the recovery tank</li> </ol>	<ol style="list-style-type: none"> <li>1) Put defoamer in the recovery tank or put it in the vacuum hose with vac motor running</li> <li>2) Point the elbow away from ball-float cage</li> <li>3) Install ball-float cage w/ filter</li> <li>4) Drain the recovery tank</li> </ol>

**WARNING :** Always disconnect power cable from electrical outlet when working on this machine.  
**DO NOT ATTEMPT TO REPAIR THE MACHINE. CONSULT AN AUTHORIZED PULLMAN-HOLT SERVICE CENTER.**

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## ***PULLMAN-HOLT***

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