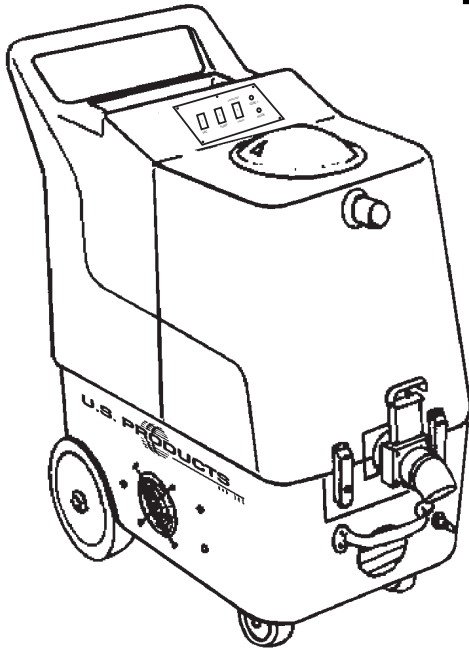




HHP-310-240 EXTRACTOR 240V



INFORMATION & OPERATING INSTRUCTIONS

**CAUTION: DO NOT OPERATE MACHINE UNTIL YOU HAVE READ
ALL SECTIONS OF THIS INSTRUCTION MANUAL**

IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

1. Always use a defoamer when foaming occurs to prevent vacuum motor damage.
2. Before each use, remove the spray tool from the hose, and check to make sure the spray nozzles are securely tightened to the spray tool. A loose nozzle could fly off during use.
3. Keep machine from rain and snow, extremes in temperatures, and store in a heated location. Use the machine indoors. Do not use outdoors.
4. Never allow the spray to remain fixed in one spot.
5. Use approved chemicals only. NO SOLVENTS.
6. Wear gloves or use rags when removing quick disconnects to prevent burns.
7. Never use water above 54° C in the solution tank.
8. Never use the machine without the pre-filter bag installed.

IMPORTANT SAFETY INSTRUCTIONS

This machine is only suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices other than normal residential housekeeping purposes.

When using any electrical appliance, basic precautions should always be followed, including the following:

NOTE: Read all instructions before using this machine.



WARNING!

To reduce the risk of fire, electric shock, or injury:

- Do not leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only as described in this manual. Use only the manufacturer's recommended attachments.
- Never add water over 130° F/54° C to the solution tank.
- Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- Do not pull by the cord, use the cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Do not run the machine over the cord. Keep the cord away from heated surfaces. To unplug, grasp the plug, not the cord.
- Do not handle the plug, the cord or the machine with wet hands.
- Extension cords must be 14/3 and no longer than 50 feet. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep loose clothing, hair, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes, or any health endangering dusts. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Connect to a properly grounded outlet only.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure, or chemical content.

INSPECTION:

Carefully unpack and inspect your HHP-310-240 for shipping damage. Each machine is tested and inspected before shipping. Any shipping damage incurred is the responsibility of the carrier. You should notify the carrier immediately if you notice damage to the box or to the machine or parts.

CLEANING SOLUTIONS:

We recommend liquid cleaning chemicals. Powder chemicals may be used, but unless mixed very thoroughly they could cause a build-up in the pump, lines, heat exchanger and/or quick disconnects. Any problem caused by a chemical build-up is not covered by warranty. Use a neutral cleaner with a pH between 5 and 10 to avoid premature wear of the pump, seals, and/or other components. Damage caused by the use of strong chemicals is not covered by the warranty.

MAINTENANCE:

For optimum performance flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. The vacuum motor, pump motor, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours, and the pump and bypass valve may require rebuild kits after 1000 - 1500 hours, typically (refer to machine part list for numbers). Clean the body with an all-purpose detergent, and protect it with an automobile interior polish. Lubricate the wheels, castors, and quick disconnects with an all purpose silicone spray.

PARTS AND SERVICE:

Repairs, when required, should be performed by your authorized distributor who maintains an inventory of original replacement parts and accessories. Call the distributor from whom you purchased this machine if you need parts and service. Be sure to specify the machine model. Have your serial number handy.

SAVE THIS INFORMATION

Serial Number: _____

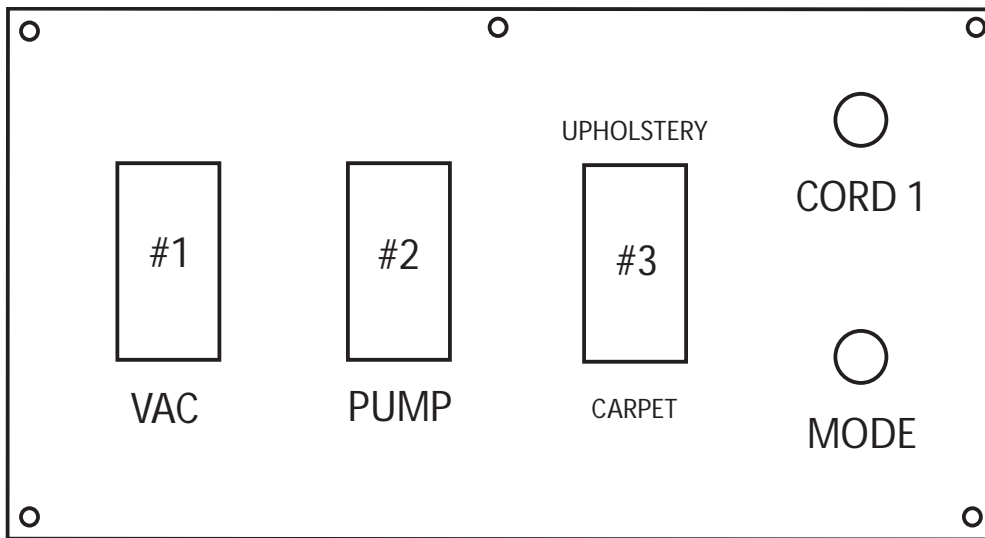
Model: HHP-310-240

Purchase Date:_____

Write the name and phone number of your distributor:

(and be sure to register your purchase to activate your warranty)

SWITCH PLATE



VAC (1) & PUMP (2) SWITCHES:

These switches are powered by cord #1. Switches are on when illuminated.

CARPET/UPHOLSTERY SWITCH (3):

This switch is also powered by cord #1. The carpet setting (down position) is high pressure (approximately 300 PSI). The upholstery setting (up position) is low pressure (approximately 50 PSI with a K1 or V2 spray tip). NOTE: Switch does not illuminate.

HEAT MODE LIGHT (6):

This light will only illuminate when the heater is heating and will turn off when it reaches operating temperature. During normal operation, the "MODE" light will be on most of the time.

SET-UP and OPERATION:

Fill the holding tank with clear water and the detergent of your choice. Mix well. Although this machine is designed to supply instant hot water, the addition of warm water (not above 130° F/54° C) to the holding tank would increase heater efficiency.

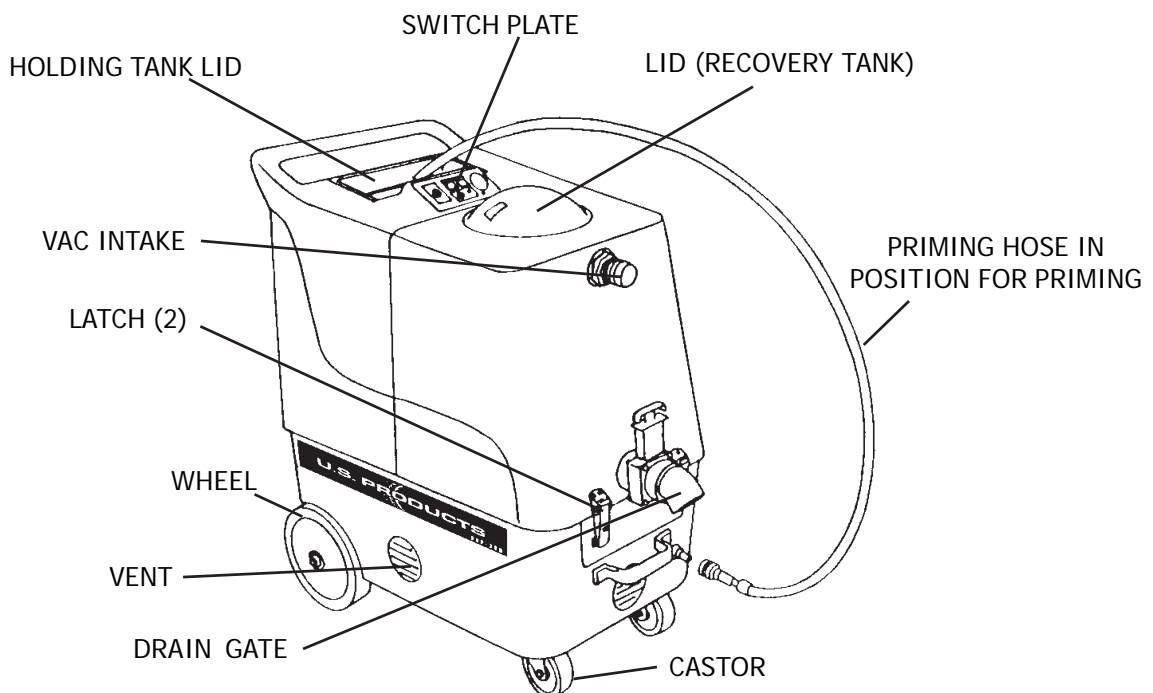
1. Plug in cord #1 (vac and pump). Attach the priming hose to the machine (see illustration). Turn the pump on and set the switch to the upholstery setting. Run until the pump is fully primed, then turn off the pump. Remove the priming hose and attach the cleaning hoses and tool.
2. Turn on the pump and spray through the cleaning tool for a few seconds to fill the lines with solution.
3. Plug in cord #2 (identified by the red "H" on the back of the extractor). Wait 2 minutes for the heat exchanger to reach operating temperature (the red light will go out). You may now begin cleaning. It will take about 10 seconds for the initial heat to reach the wand.

NOTE: It is normal for the red light to turn on and off during cleaning operations, and it will be on most of the time you are cleaning.

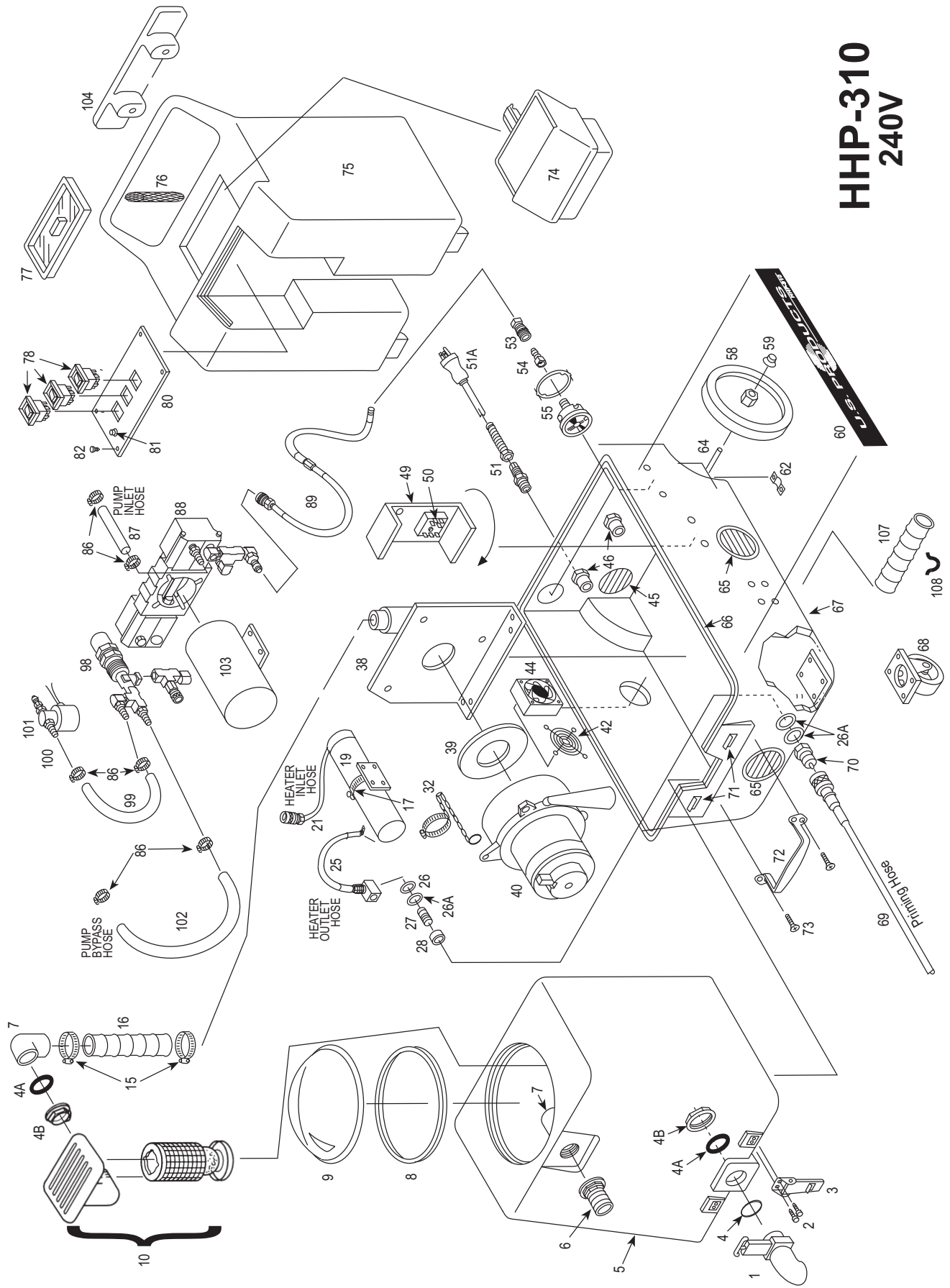
BALL FLOAT VAC SHUTOFF:

When the recovery tank is full, the float system will shut off the incoming air flow and prevent water from entering the vacuum motors. The float may not work properly if the float ball cage is clogged or if there is foam in the tank. Foam may not lift the ball float.

CAUTION: To avoid vac motor damage, always make sure the float cage is clean and the ball travels freely before turning on the machine, and use a defoamer whenever foam is present.



HHP-310 240V



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PARTS LIST

Item Part Description

1	FP231	Drain Gate assembly
2	21	Screw, Button Head, 10-32 x 5/8"
3	908	Latch
4	187	O-Ring, Small
4A	187B	O-Ring, Large
4B	185	Nut, 1-1/2"
5	V-1	Vacuum Tank, HHP
6	907	Hose Barb, 1-1/2"
7	922	PVC Elbow, 1-1/2"
8	2009	Gasket (Vacuum Dome)
9	FP201	Vacuum Dome
10	FP193	Float, Ball & Cage
15	156	Hose Clamp, (size 28)
16	430B	Hose, Vacuum, Rubber, 2" X 21"
17	76A	Hose Clamp, (Size 36)
19	FP159B	Heat Exchanger, Complete (240V)
21	2012	Hose, 26"
25	FP164	Hose Assy, Braided, for Heat Exchanger, Outlet
26	31	Washer, Brass
26A	115	Washer, Fiber
27	92A	Nipple, S/S, 1/4 p.t.
28	116A	Bushing, Fiber
32	934	Chain 9.5"
38	926	Manifold, Vacuum
39	959	Gasket (Vacuum Motor)
40	FP385	Vacuum Motor, 3-Stage, w/Connectors
42	2015	Guard, Fan
44	2014	Fan, Cooling
45	459	Louver, 2-1/2" (includes screws)
46	937	Reducer, PVC
49	918	Heat Sink Plate
50	See Misc.	Thermistor Control with Potentiometer**
51	184	Cord Retainer
51A	2019	Power Cord, 25', Yellow
53	220	Quick disconnect, female
54	219	Quick disconnect, male
55	2164	Pressure gauge
58	2003	Wheel, 8"
59	27A	Axle Cap, Black
60	966	Label, HHP-310
62	180	Axle Bracket
64	910-15.56	Axle, 1/2 x 17-1/2"
65	928	Louver, 3", includes screws

Item Part Description

66	FP228A	Gasket, Base
67	BBLK-1	Base, HHP
68	905	Castor, Swivel, 4"
69	SYP1	Priming Hose
70	45	Quick Disconnect, Male, 1/4 p.t.
71	909A	Latch Strike for Latch, S/S
72	2010A	Handle, Chrome
73	193	Screw, Flathead, 1/4"
74	F-6	Funnel, Black
75	T-1	Holding Tank, HHP
76	1557	Filter screen
77	901	Lid, Holding Tank
78	48G	Switch, Pump & Vacuum
80	2083	Switch Plate (240V)
81	228	Light, Red (240V)
82	28	Screw, #4 x 3/8"
86	166	Hose Clamp
87	946	Hose, Pump Inlet, 1/2" X 14"
88	FP236	Pump, complete, no motor
98	945	Bypass Valve
99	925	Hose, 3/8" X 8"
101	2063	Solenoid (240V)
102	925	Hose, Pump Bypass, 3/8" X 14"
103	2064	Motor, for Pump (AC, 240V)
104	CWBLK	Cord Wrap, Black
107	430	Hose, Exhaust, 2" x 12"
108	928A	Bracket, Exhaust Hose

MISCELLANEOUS ASSEMBLIES/PARTS

291	Bypass Valve Rebuild Kit
950CP	Valve/O-Ring Kit, Pump
250	Piston/Seals Kit, Pump
950A	Bearing/Cam Assembly (for Pump)
**FP194E	Thermistor Control Kit with Potentiometer, Probe & Thermal Cutout
FP2008	Vacuum Dome, w/Gasket

(NOTE: Items in kits not sold separately.)

TROUBLE SHOOTING:

<u>IF THIS OCCURS</u>	<u>CHECK THIS</u>
NO SPRAY	Solution tank is empty. Clogged spray tip. Pump not running or not primed Valve on wand not operating
PUMP DOESN'T RUN	No power to pump.
LOW SUCTION	Debris plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum dome is not seated or is damaged.
NO SUCTION	No power to motor. Test the switch. Test the Electronic Float. Test the vacuum motor. Test the Vacuum Circuit Board.
LOW HEAT	Spraying too long. Try spraying for 12-15 seconds per cycle. Heat exchanger needs to be flushed. Wrong tool being used. Too much water passing through. Longer hose or larger diameter hose, than standard.
NO HEAT	Heat cord is not plugged in. No power in the wall outlet - check to see if the breaker has tripped. Call your distributor for additional help.

SPECIFICATIONS:

- Rotomolded Body: Lifetime Warranty
- Vacuum: 7.2", 3-stage
- VAC Shutoff: Ball float
- Pump: Positive displacement, 300 psi for carpet and 75 psi for upholstery
- Waterlift: 140"
- Heat: Adjustable to 212° F
- Heater: 2000 Watts
- Wand: Stainless steel, double bend, twin tip
- Weight: 99 lbs.
- Dimensions: 26.5H x 18W x 28.75L (inches)

