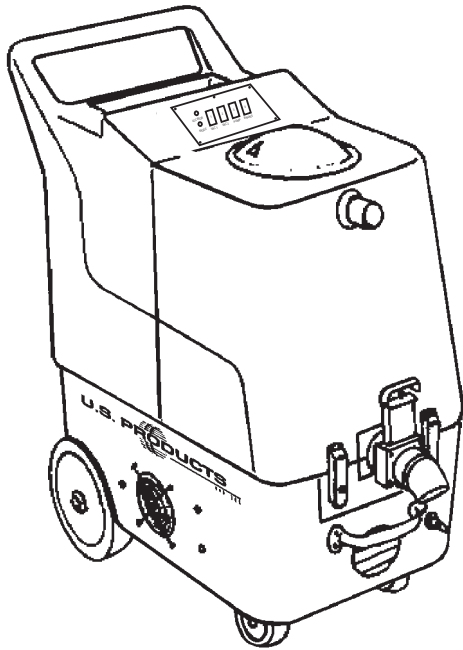




# HHP-150 EXTRACTOR 120V



## INFORMATION & OPERATING INSTRUCTIONS



**DO NOT OPERATE MACHINE UNTIL YOU HAVE READ  
ALL SECTIONS OF THIS INSTRUCTIONS**

**IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY**

1. Always use a defoamer when foaming occurs to prevent vacuum motor damage.
2. Keep machine from rain and snow, extremes in temperatures, and store in a heated location. Use the machine indoors. Do not use outdoors.
3. Do not let the pump run dry.
4. Use approved chemicals only. NO SOLVENTS.
5. Wear gloves or use rags when removing quick disconnects to prevent burns.
6. Never use water above 130° F/54° C in the solution tank.

## 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 12/3 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-150 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 motors, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours. 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.

**Serial Number:** \_\_\_\_\_

**Model:** HHP-150

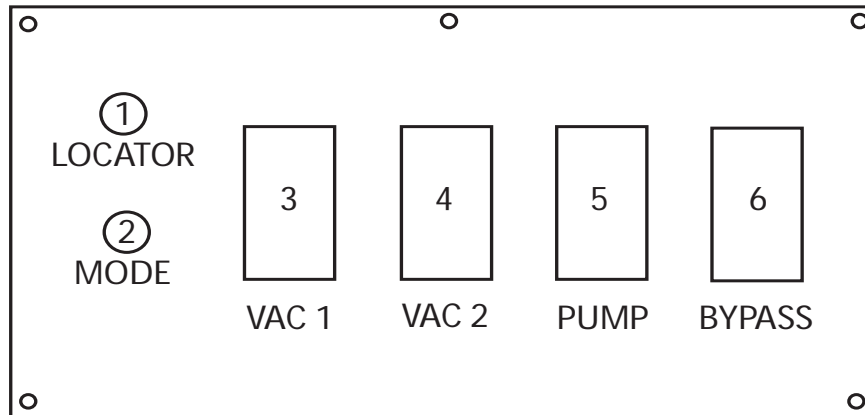
**Purchase Date:** \_\_\_\_\_

**Write the name and phone number of your distributor:**

\_\_\_\_\_  
\_\_\_\_\_

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

## SWITCH PLATE



### **CIRCUIT LOCATOR (1):**

When this green light is on, it indicates that cord #2 is on a separate line from cord #1. Cord #2 supplies voltage to the heater and is labeled an "H" on the back of the extractor.

### **HEAT MODE LIGHT (2):**

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

### **VACUUM SWITCH (3 & 4):**

Each switch turns on one vacuum motor. Turn both switches on for maximum lift. The switches illuminate when turned on.

### **PUMP SWITCH (5):**

This switch turns on the pump. The switch illuminates when turned on.

### **BYPASS SWITCH (6):**

The bypass switch will illuminate when it is turned on, and it will completely bypass the circuit locator. Use this feature only when the circuit locator light will not operate and you know each cord is on a separate circuit breaker.

### **CAUTION:**

**WHEN THE BYPASS SWITCH IS ON, THE CIRCUIT BREAKER CAN TRIP IF BOTH CORDS ARE ON THE SAME CIRCUIT AND THE BYPASS SWITCH IS TURNED ON.**

## 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. This cord runs the pump and vacuums.
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). IF THE GREEN LIGHT ILLUMINATES, THE HEAT EXCHANGER WILL TURN ON AUTOMATICALLY (SEE NOTE BELOW). Wait 2 minutes for the heat exchanger to reach operating temperature. You may now begin cleaning. It will take about 10 seconds for the initial heat to reach the wand.

**NOTE:** If the green circuit indicator light does not illuminate when cord #2 is plugged in, then both cords are on the same circuit. Try other outlets until the light comes on. See bypass switch section (below) if you are unable to get a green light.

### **ELECTRIC CIRCUIT LOCATOR:**

This unique, patented "smart system", operated by a solid state circuit, will inform the operator when the two cords are plugged into separate lines by illuminating the green indicator light. This helps prevent tripping circuit breakers.

### **BYPASS SWITCH:**

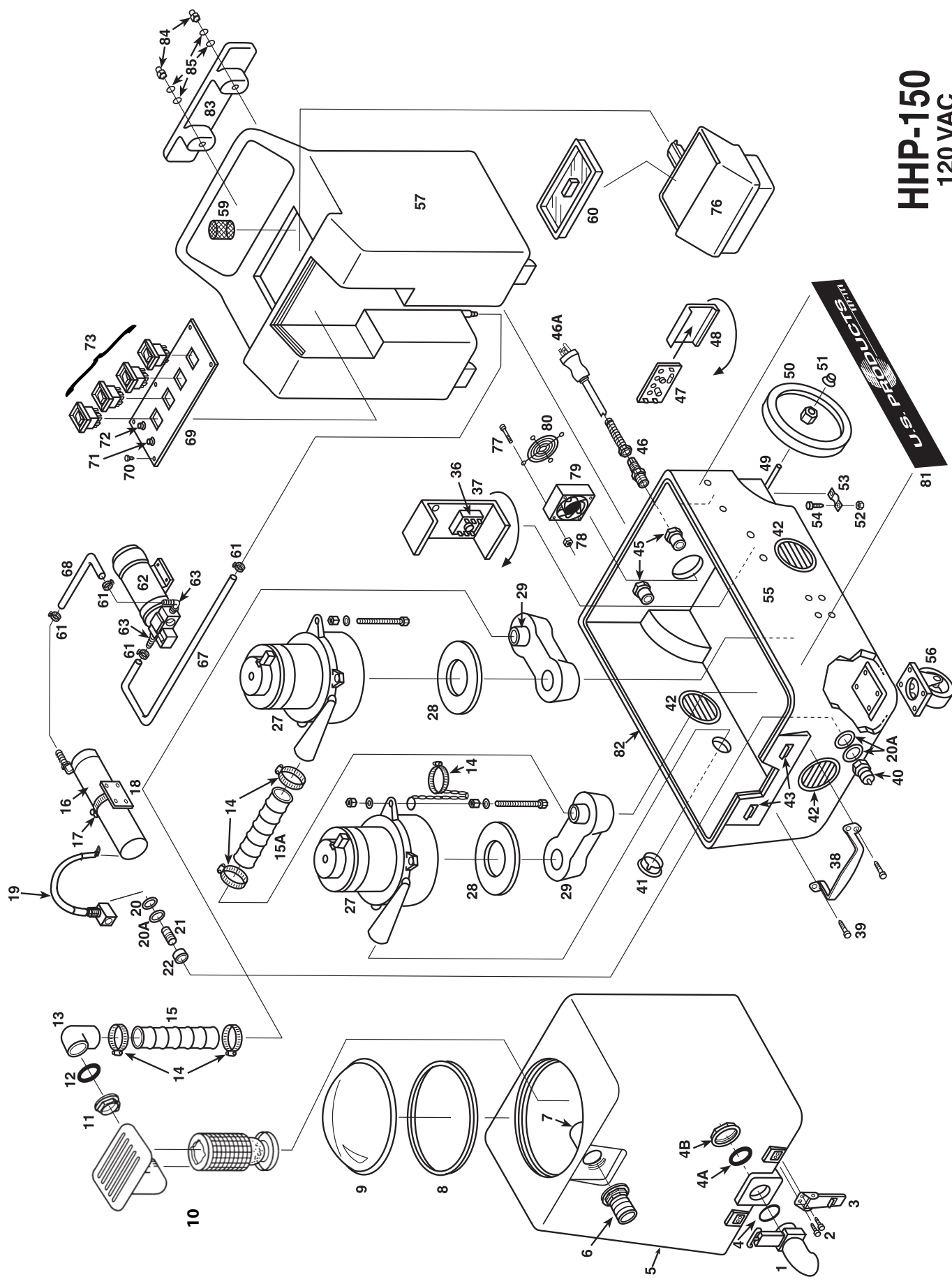
The bypass switch completely bypasses the circuit locator system. Use this feature when you cannot get the green light to come on and you believe that the two cords are on separate circuits.

**CAUTION:** If the bypass switch is on and the two cords are plugged into the same circuit, the breaker may trip.

### **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-150

120 VAC



# HHP-150 120V

## PARTS LIST

### ITEM PART# DESCRIPTION

#1	FP231	Drain Gate assembly
#2	21C	Screw, Button Head, 10-32
#3	908	Latch
#4	187	O-Ring, Small
#4A	187B	Washer, rubber
#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	Ball Float Assembly, Complete
#11	185	Nut, 1-1/2"
#12	187B	Washer, rubber
#13	922	PVC Elbow, 1-1/2"
#14	156	Hose Clamp (size 28)
#15	FP171A	Hose, Vacuum to Tank, 2" X 24"
#15A	430A	Hose, Vacuum to Manifold 2" X 13"
#16	FP158	Heat Exchanger, Complete
#16A	208	Hose Barb, 3/8" Hose x 1/8 p.t., Brass
#17	198	Hose Clamp (size 36)
#18	455	Heat Exchanger Mount
#19	FP164	Hose Assy, Braided, for Heat Exchanger
#20	31	Washer, Brass
#20A	115	Washer, Fiber
#21	92A	Nipple, S/S
#22	116A	Bushing, Fiber
#25	14	Washer, 3/16"
#26	8	Lock-Nut, 1/4-20
#27	FP324	Vacuum Motor, 2-Stage, w/gasket
#28	2013	Gasket (Vacuum Motor)
#29	MA-6	Vacuum Manifold (#3 or #4)
#36	see Misc.	Thermistor Control with Potentiometer
#37	918	Thermistor Heat Sink Plate
#38	2010A	Chrome Handle
#39	193	Screw, Flathead, 1/4"
#40	45	Quick Disconnect, Male, 1/4" Pipe Thread
#41	440	Flange, Exhaust
#42	928	Louver, 3" (includes screws)
#43	909A	Latch Strike, for Latch, S/S
#45	937	Reducer, PVC
#46	184	Cord Retainer
#46A	495A	Power Cord, 25', Yellow
#47	923B	Circuit Board, Dual Cord Sensor
#48	FP336	Mounting Track, Circuit Board

### ITEM PART# DESCRIPTION

#49	910	Axle, 1/2" X 17-1/2"
#50	2003	Wheel, 8"
#51	27A	Axle Cap, Black
#52	8 Lock Nut, 1-4-20	
#53	180	Axle Bracket
#55	BBLK-1	Base, Black, HHP
#56	905	Castor, 4"
#57	T-1	Holding Tank, HHP
#59	207A	Filter, 40 Mesh, S/S
#60	901	Lid, Holding Tank
#61	166	Hose Clamp
#62	2066	Pump (no fittings), 150 psi
#63	108A	Hose Barb, Elbow 3/8" x 3/8"
#67	FP169C	Hose, Inlet, 3/8" X 18"
#68	FP166	Hose, Outlet, 3/8" X 4'
#69	978	Switch Plate
#70	28	Screw, #4 x 3/8"
#71	78B	Light, Red, small
#72	78	Light, Green, small
#73	FP578	Switch, rocker
#76	FP204	Funnel (black)
#77	2B1	Screw, 6/32" X 2"-1/4"
#78	16	Lock Nut, 6/32"
#79	2014	Fan, Cooling
#80	2015	Guard, Fan
#81	4334	Label
#82	FP228	Gasket, Base
#83	CWBLK	Cord Wrap
#84	260	Nut, Acorn, 3/8"
#85	203	Washer, Nylon

### MISCELLANEOUS ASSEMBLIES/PARTS

\*\*FP914E Heat repair kit with potentiometer, probe, cutout and instructions  
 FP194C Heat repair kit with Potentiometer, probe, cutout & Dual Cord Sensor Circuit Board  
*(NOTE: for machines built before, and not repaired since, 1995)*  
 FP2008 Vacuum Dome, w/Gasket, complete

(NOTE: Items in kits not sold separately)

## **TROUBLE SHOOTING**

### **IF THIS OCCURS**

### **CHECK THIS**

NO SPRAY	Solution tank is empty. Clogged spray tip. Pump not running. Valve on wand not operating
PUMP DOES NOT RUN	No power to pump. Test the switch. Test the pump motor
LOW SUCTION	Debris plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum lid is loose or gasket is damaged.
NO SUCTION	No power to vacuum motor. Test the switch. Test the vacuum motor.
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 because of a longer hose or larger diameter hose than standard.
NO HEAT	Heat is not turned on. Either the green light must be on or the bypass switch must be turned on. No power in the wall outlet - check to see if the breaker has tripped. No power to the bypass switch - check power cord for 'opens'. No power out of bypass switch, follow troubleshooting steps to isolate the problem call your distributor for additional help

## **SPECIFICATIONS**

Rotomolded Body: Lifetime Warranty  
 Vacuum: Twin 2-stage 5.7" motors  
 VAC Shutoff: Ball float  
 Pump: Demand pump 150 psi  
 Waterlift: 150"  
 Heat: 212° F  
 Heater: 2000 Watts  
 Wand: Stainless steel, single bend, twin tip  
 Weight: 88 lbs.  
 Dimensions: 26.5H x 18W x 28.75L (inches)



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