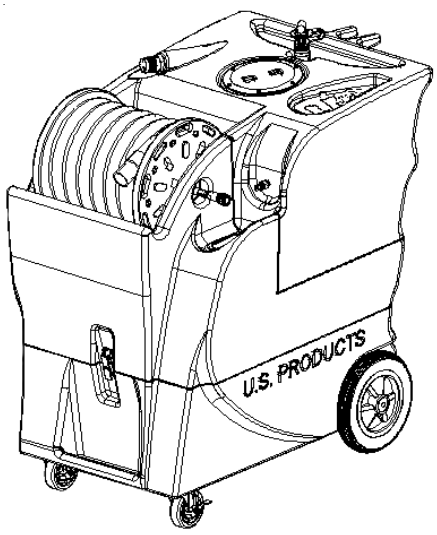
U.S. PRODUCTS

KC-500

240V



INFORMATION & OPERATING INSTRUCTIONS

DO NOT OPERATE MACHINE UNTIL YOU HAVE READ

ALL SECTIONS OF THE 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.

January 19, 2006

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 130º F/54º C to the solution tank.
- Do not leave the pump running when you are not actively engaged in cleaning.
- 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.

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

Record the serial number and model of your new extractor here:

(and be sure to mail your warranty card)

Serial Number: _____ Model: KC-500-240 Purchase Date:_____

Write the name and phone number of your distributor: _____

_____

INSPECTION:

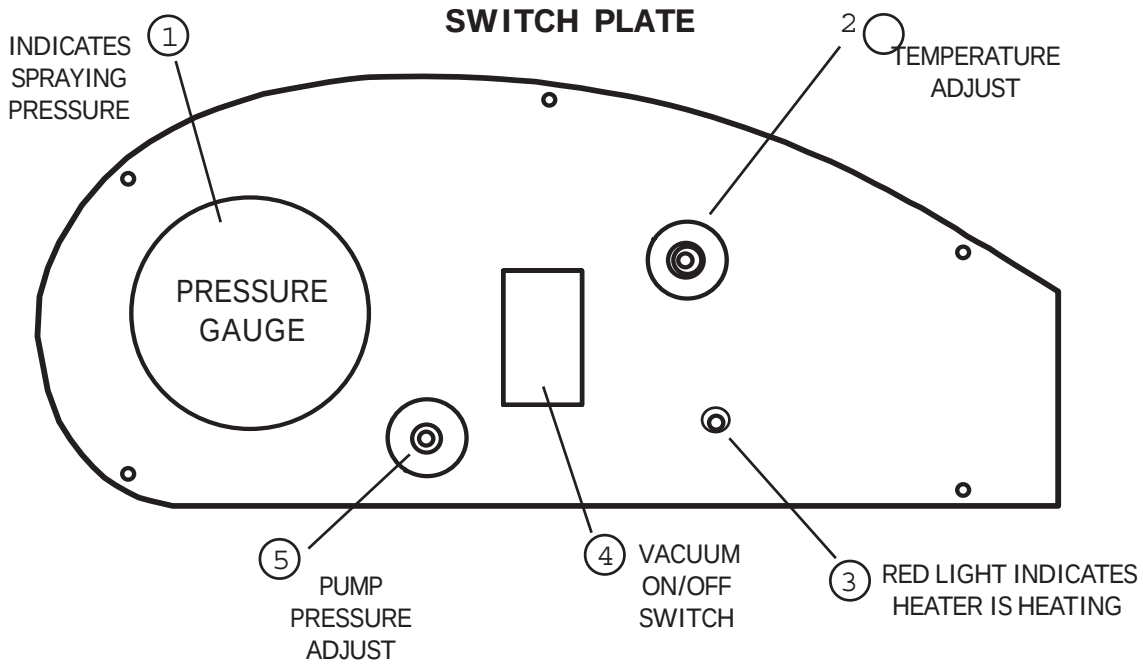
Carefully unpack and inspect your KING COBRA-500 for shipping damage. Each machine is tested and inspected before shipping. Any shipping damage incurred is the responsibility of the carrier. You should notify the carrier immediately if you notice damage to the box or to the machine or parts.

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 6 and 9 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:

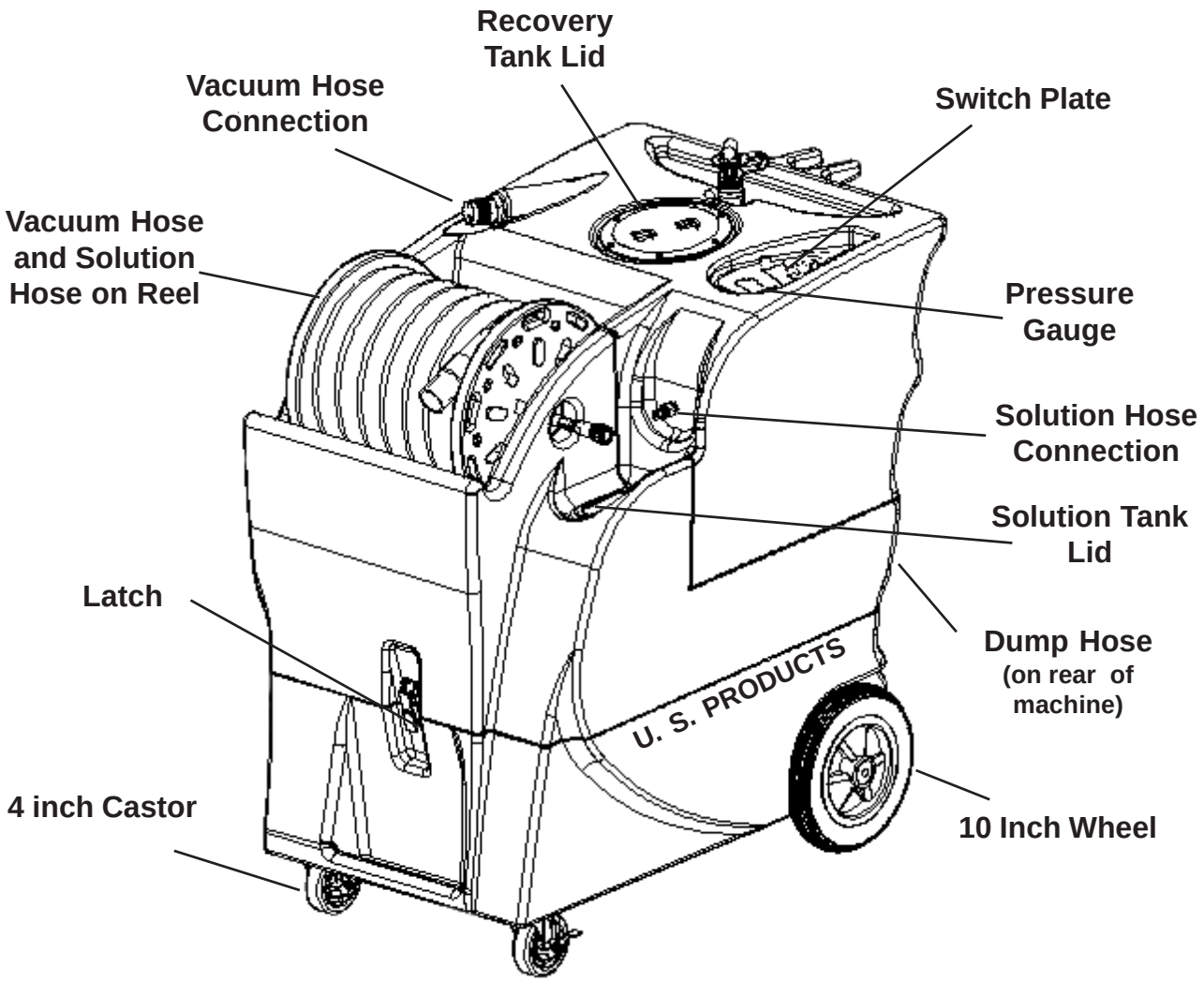
For optimum performance flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. U.S. Products “X-1500” is recommended. The vacuum motor, pump motor, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours. The pump may require rebuild kits after 1000 - 1500 hours, typically, and the pump unloader valve may need to be replaced after approximately 1000 - 1500 hours of use.(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.



SWITCH PLATE FUNCTIONS (refer to the diagram on the previous page)

1) The **pressure gauge**. This gauge only reads the pressure when the machine is in use. While you are not spraying, the pressure reading drops to 0.
2) This **temperature adjustment knob** will allow you to vary the heater temperature between about 60 °C and maximum (100 °C). The maximum temperature is achieved when the knob is turned all the way clockwise. When the knob is turned all the way counter-clockwise, the heater will still heat, but the temperature is reduced to about 60 °C. If you want no heat, simply leave the heater power cord unplugged.
3) This **red light** will turn on only when the heater is actually heating water. Once the maximum temperature has been reached, the light will go out. NOTE: this light will be on nearly all the time as you work.
4) This **vacuum rocker switch** turns the vacuum on and off. The switch lights when it is turned on.
5) This **blue knob turns the pump on** and adjusts the pressure between 0 psi and 500 psi. Always adjust the pressure while you are spraying.

KNOW YOUR MACHINE



SET-UP & OPERATION *refer to drawings on the previous pages*

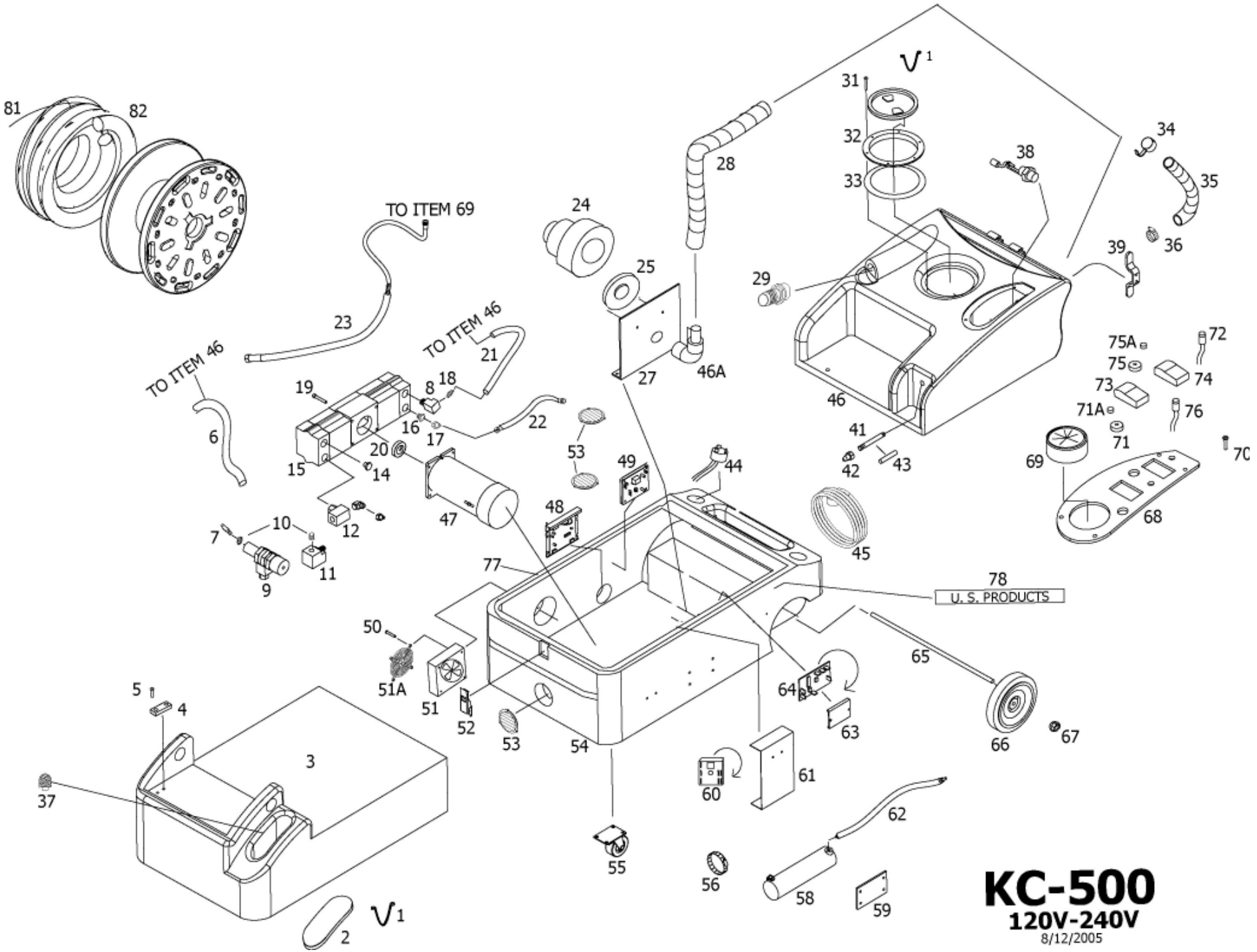
1 Inspect the machine, hoses, and cleaning tools for cleanliness and completeness.
2 Fill the solution tank with water. Using warm water may be a benefit in cleaning effectiveness, but do not use hot water (above 54 ˚C/130 °F) in the tank.
3 Screw the lid on the recovery tank. Close the dump hose.
4 Plug in the power cords. Do not connect both cords to the same outlet; the red light on the switch plate should light up as soon as power is supplied.
CAUTION: if the cords are on the same circuit, the circuit breaker in the wall may trip. **NOTE**: the receptacle on the left (viewed from behind the machine) powers the heater. The red light (**3**) will turn on only when the heat exchanger is actively heating.
5 Connect the priming/siphon hose to the Quick Disconnect on the front of the machine, turn the pump ON by turning the pump pressure knob (**5**) up to increase pump speed, and turn the vacuum switch (**4**) on. Hold the rubber 'cork' against the vacuum inlet hose barb on the recovery tank. The pump should prime between 20 - 60 seconds. Watch the water flow into the recovery tank through the clear lid. When the water is clear (no air in it) and flowing strongly, turn both the pump and the vacuum off, and remove the priming hose. Priming may take 20 - 60 seconds, and the solution tank should be full.
6 Add liquid cleaning chemical, with a pH between 6 and 9, to the solution tank.
7 Attach the spray hose (from the reel) to the solution quick disconnect on the front of the machine and the vacuum hose to the hose barb on the recovery tank. Pull the hoses out from the reel. Attach the other ends of the hoses to the cleaning tool.
8 Set the temperature knob (**2**) to the desired heat setting. Allow the heat exchanger two minutes to reach operating temperature. The red light (**3**) will go out when the heater has reached operating temperature. **NOTE**: the red light will be on nearly all the time as you clean.
9 Turn the pump on by setting the pressure adjust knob to the desired spraying pressure (0 - 500 PSI). Read the spraying pressure at the pressure gauge (**1**) while spraying. **NOTE**: when you let off the trigger on the wand, the pressure gauge reading will drop to 0 psi; however, the spraying pressure will remain at the level to which you have set it. Turn the vacuum on (**4**). **NOTE**: the vacuum motor will start up slowly to prevent a large current surge.
10 Begin cleaning.
11 Use defoamer in the recovery tank any time foaming occurs.
12 Monitor the water level in the solution tank. Do not let the pump run dry.
13 When the solution tank gets low, turn off the pump and the vacuum, fill the solution tank, empty and clean the recovery tank.
14 When finished with the job, remove any unused solution from the solution tank, and run a few gallons of clean water through the system. Drain the recovery tank by placing the dump hose over a drain, or a bucket, and removing the cap. Disconnect the hoses from the cleaning tool, and reel them up onto the hose spool.

NOTE: To remove the reel, with hoses, from the machine, pull the vacuum hose loose from the hose barb on the front of the tank. Disconnect the solution hose quick coupling. Push Vacuum hose into the center of the hose spool. Grasp the spool from either side, and lift it off the machine. **NOTE**: before servicing any component in the base cabinet, the hoses and spool must be removed from the machine before the tanks can be lifted open.

⚠**CAUTION**: to avoid vacuum motor damage, always make sure the float filter is clean and that it can travel freely before you operate the machine. Always use a defoamer any time foam is present.

ELECTRONIC FLOAT SHUT-OFF

When the recovery tank is full, the electronic float switch will turn the vacuum motor off. This will prevent water from entering the vacuum motor. The float may not work properly if the float filter rod is dirty or if there is heavy foam in the tank. To reset, turn the Vacuum switch off, and empty the tank.



KC-500

120V-240V

8/12/2005

KING COBRA-500 EXTRACTOR

120V **PART LIST** 240V

ITEM	PART No	DESCRIPTION
1	805	Chain, lid, 8”
2	901B	Lid, solution tank
3	HKCR-1	Holding Tank, white
4	1088	Glide, teflon
5	178	Screw, 6-32 X 1/2”
6	925	Hose, 3/8” I.D. X 24”
7	164	Hose barb, brass, 3/8” hose
8	91	Elbow, 90 degree
9	945D	Valve, pump unloader
10	92A	Nipple, S/S
11	216	Elbow, brass
12	168	“T”, brass, 1/4 p.t.
14	211	Plug, brass, 1/4 p.t.
15	950C	Pump, no motor
16	97	Reducer, brass
17	223	Quick connect, male, 1/8 p.t.
18	165	Hose barb, brass, 1/2” hose
19	1147	Cap screw, pump to motor
20	950D	Cam/bearing assembly
21	946	Hose, 1/2” I.D. X 18”
22	FP348D	Hose, pump to heater, 12”
23	FP411	Hose assembly, pump to gauge
24	913	Vacuum motor, 3-stage, **120V**
	913A	Vacuum motor, 3-stage, *240V*
25	959	Gasket, vacuum motor
27	926	Manifold, vacuum motor mount
28	1136	Hose, vacuum inlet, 1-1/2” X 24 “
29	907	Hose barb, for vacuum hose
31	1148	Screw, 8-32 X 1”
32	2086	Lid, vacuum, with ring
33	1074	Gasket, lid
34	1060B	Plug, drain hose
35	1060C	Hose, drain, 1-1/2” X 24”
36	156	Hose clamp
37	207A	Filter, pump inlet
38	2026	Float switch
39	CWKC-BLK	Cord wrap, Black
41	1146	Pipe, 6.85”, S/S
42	45	Quick connect, male, 1/4 p.t.
43	1144	Rubber sleeve, 1/2” ID X 5”
44	1062	Receptacle, power cord
45	1057B	Power cord, 25 ft, 3/12, yellow
46	VKCR-1	Vacuum tank, white
46A	1131	Elbow, PVC
47	948B	Motor, pump, DC out, **120V**
	949B	Motor, pump, DC out, *240V*
48	FP361	PCB, pump motor speed, **120V**
	FP362	PCB, pump motor speed, *240V*
49	FP225	PCB, vacuum control, **120V**
	FP225A	PCB, vacuum control, *240V*
50	2B1	Screw, 6-32 X 2-1/4”
51	2014	Fan, cooling, **120V**
	2018	Fan, cooling, *240V*
51A	2015	Guard, fan

ITEM	PART No.	DESCRIPTION
52	908A	Latch, draw, rubber
53	928	Louver, 3”, includes 3 screws
54	BKCR-BLK	Base, black
55	905	Castor, 4”
56	176	Hose clamp
58	FP348	Heat exchanger, **120V**
	FP349	Heat exchanger, *240V*
59	455	Bracket, mounting, heater
60	----	See miscellaneous Parts and Kits
61	918	Plate, heat sink
62	FP348A	Hose, heater to outlet
63	FP336	Snap track, PCB mounting, 4”, **120V** only
64	923B*	PCB, circuit sensor, **120V** only
65	910	Axle, 21”
66	2084	Wheel, 10”
67	27A	Axle cap
68	943B	Switch plate
69	951B	Pressure gauge
70	28	Screw, #4 X 3/8”
71	FP399	Potentiometer, with cable, pump
71A	248	Knob, blue top, for pump speed
72	78B	Light, red, 120V
	228	Light, red, 240V
73	FP345	Switch & actuator, vacuum
74	FP346	Switch & actuator, bypass
75A	248	Knob, red top, for heat adjustment
75	FP347	Potentiometer, with wires, heat
76	78	Light, green, **120V** only
77	FP351	Gasket, (#1043A X 84”)
78	1128	Label, KC-500
81	FP350B	Pressure line complete, 25’ with swivel
82	FP350A	Vacuum hose complete, 25’ with swivel cuff

MISCELLANEOUS PARTS AND KITS

FP194C	Heat repair kit includes probe, thermistor control, thermal cutout and circuit board **120V**
FP194A	Heat repair kit includes probe, thermistor control and circuit board **120V**
FP226C	Heat repair kit includes probe, thermistor control, thermal cutout, *240V*
FP226A	Heat repair kit includes probe, thermistor control, *240V*
FP409	Pump & motor complete, w/unloader 500 psi, **120V**
FP422	Pump & motor complete, 500 psi, *240V*
FP410	Pump complete w/unloader, no motor **120V**
950CP	Pump rebuild kit, valves and O-rings, 500 psi
250	Pump rebuild kit, piston and seals, 300/500
SYP500	Syphon hose and rubber cork assy
*923	PCB, circuit sensor, **120V** only (Machines made before 7-22-05)
FP350C	Vacuum hose & pressure line, complete
FP350	Vacuum hose & pressure line with reel, complete

(**NOTE**: Items in kits not sold separately.)

KC-500
EXTRACTOR
240V

SPECIFICATIONS:

Rotomolded Body:	**Lifetime Warranty**
Vacuum:	**7.2” 3-stage**
VAC Shutoff:	**Electronic**
Pump:	**Positive displacement, fully adjustable 0-500 psi**
Waterlift:	**140”**
Heat:	**Fully adjustable; 60 ºC to 100 ºC**
Heater:	**2000 Watts**
Wand:	**Stainless steel, double bend, twin tip for 500 psi**
Weight:	**122 lbs.**

U.S. PRODUCTS

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