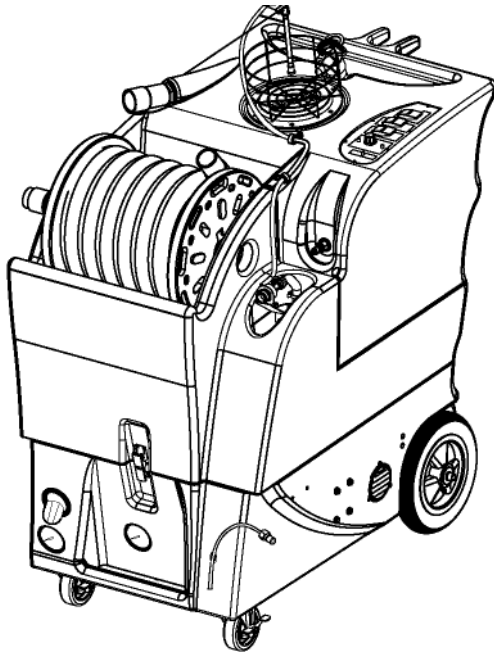




KC-1200 PRO 240V DUAL SURFACE EXTRACTOR



INFORMATION & OPERATING INSTRUCTIONS

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

IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

1. **DANGER: High spraying pressure may cause severe injury.** Always wear safety glasses. Keep hands away from spray. Never direct the spray towards people or pets.
2. Never allow the spray to remain fixed in one spot.
3. Before each use, remove the spray tool from the hose, and check to make sure the spray nozzle is securely tightened to the spray tool. A loose nozzle could fly off during use.
4. If a leak occurs at the hose, IMMEDIATELY turn the machine off. Replace hose before restarting.
5. **Always** use a **defoamer** when foaming occurs to prevent vacuum motor damage.
6. Keep the machine from rain and snow, extremes in temperatures, and store it in a heated location. Use the machine indoors. Do not use outdoors.

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 54°C/130°F 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 KING COBRA-1200 PRO 240V 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.

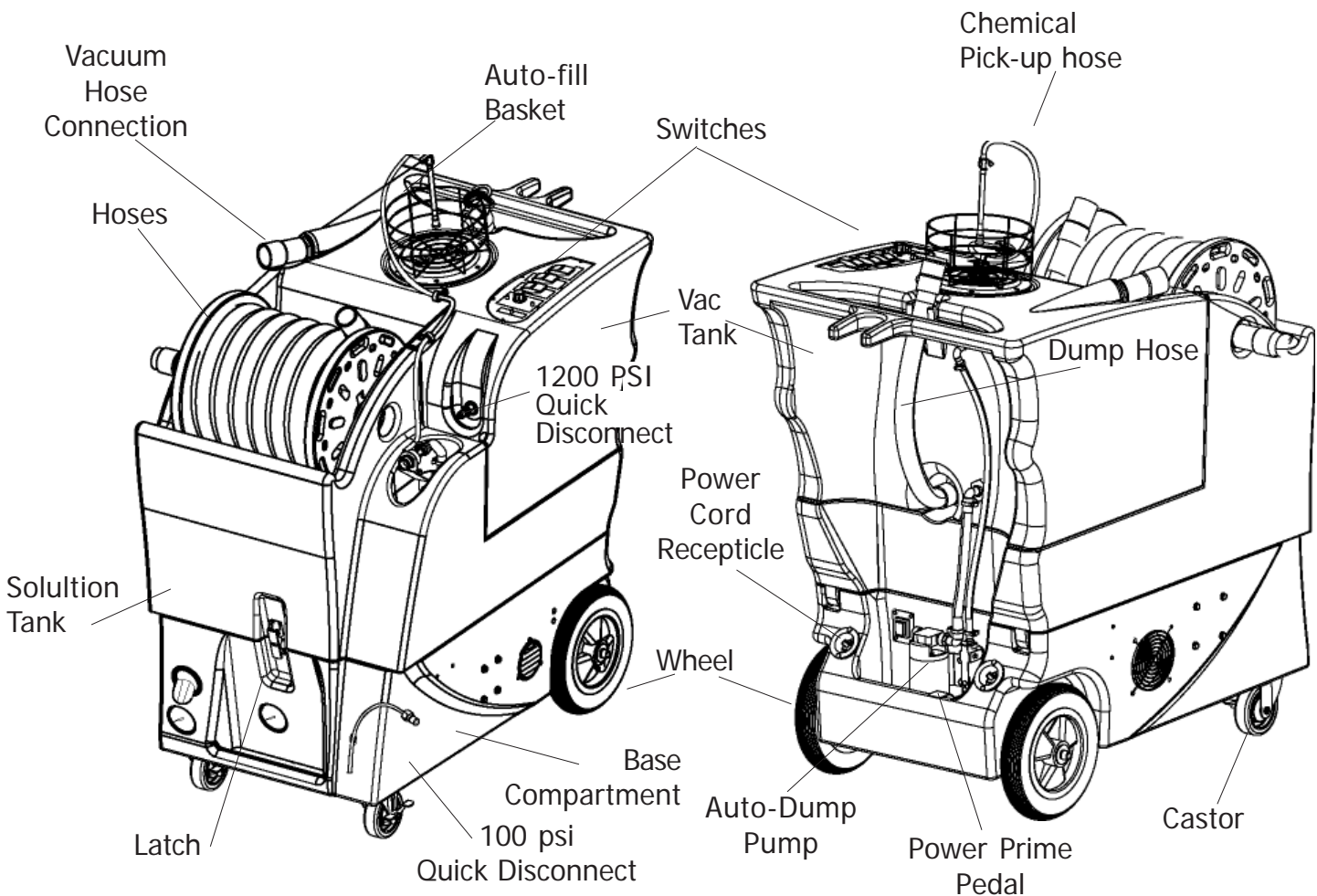
CLEANING SOLUTIONS:

Select a proper pre-spray for the surface to be cleaned, and apply the pre-spray. Use a neutral pH rinse or detergent (6 to 9 pH) in the King Cobra to prevent premature wear of the pump, seals and other components. Damage caused by the use of improper or strong chemicals is not covered by warranty. When cleaning carpets with the 500 psi pump, we recommend our Magic Fabric Cleaner. Powders are not recommended.

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, and the 1200 psi pump and unloader valve may require rebuild kits after 500 -1000 hours (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.



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

(and be sure to mail your warranty card)

Serial Number: _____ Model: KING COBRA-1200 PRO 240V.

Purchase Date: _____

Write the name and phone number of your distributor:

SWITCH PLATE

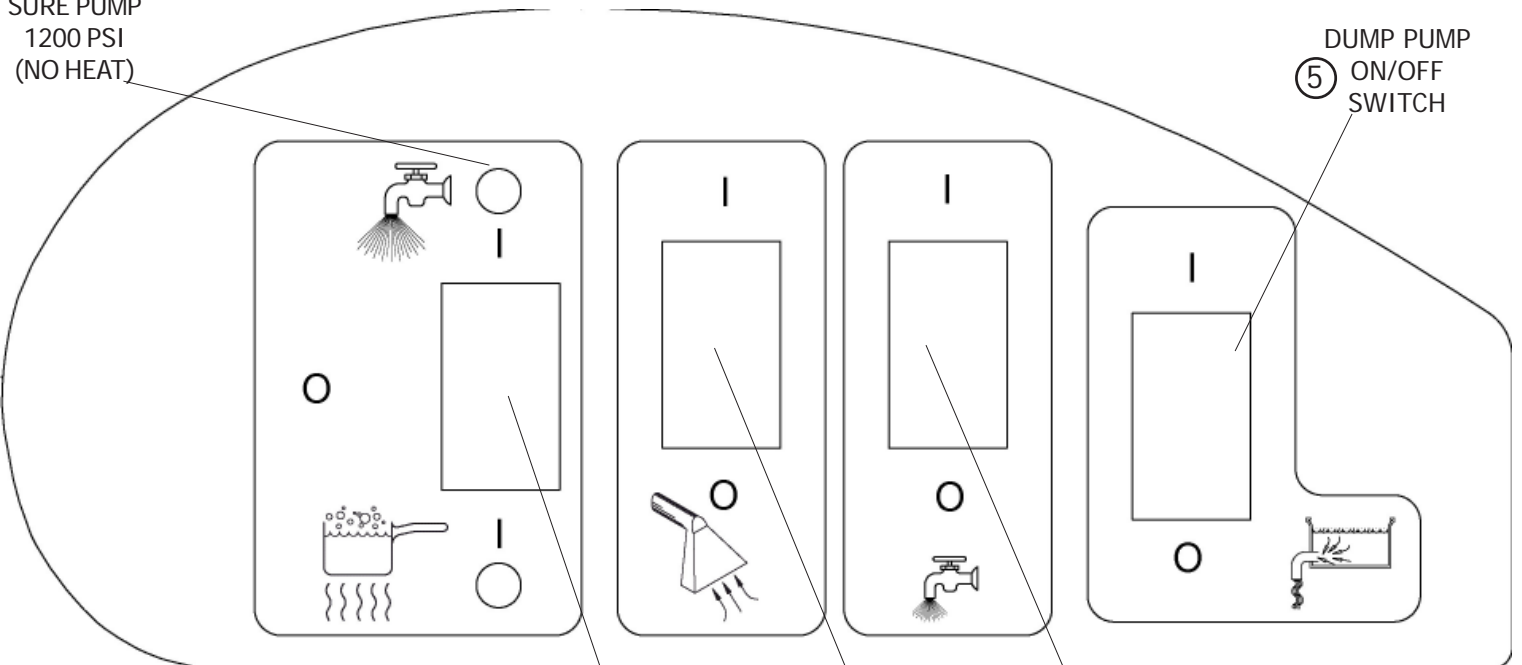
HIGH PRES-
SURE PUMP
1200 PSI
(NO HEAT)

DUMP PUMP
ON/OFF
SWITCH

②
PUMP/HEAT
SELECTOR
SWITCH

③
VACUUM
ON/OFF
SWITCH

④
500 PSI
PUMP
ON/OFF
SWITCH



OPERATION

REFER TO THE DIAGRAMS ON THE PREVIOUS PAGE

HIGH PRESSURE WASHER

1. Before each use, inspect the machine, hoses, and cleaning tools for cleanliness and completeness. Make sure hoses are in good condition and the spray nozzle(s) is tight.
REFER TO THE AUTO-FILL AND AUTO-DUMP INSTRUCTIONS ON THE FOLLOWING PAGES
2. Connect the dump hose to the back of the machine, and place the open end of the hose in a drain. Make sure the recovery tank drain hose is closed and that the lid is screwed on tight.
3. If you choose to use the auto-fill feature, connect the fill hose to the autofill valve (located over the solution tank fill hole). Place your gallon of chemical in the chemical basket on the recovery tank lid, and put the weighted foot valve into the gallon. Turn on the water source, and allow the tank to fill with solution. When using the auto-fill system, the auto fill valve will automatically turn on and turn off as the tank empties and then fills. **NOTE:** If you are not going to use the auto-fill system, just **fill** the tank with water and cleaning chemical. Follow chemical directions regarding dilution and mixing. Do not use harsh chemicals; they may damage seals in pumps and valves, and cause the pump to wear prematurely. **NOTE:** using warm water in the tank may improve the efficiency of the heat exchanger when cleaning with heat, but never use water with a temperature exceeding 54°C/130°F.
4. Pre-spray the area to be cleaned, with a pump-up sprayer, while the tank is filling. Follow chemical directions.
5. Connect the solution hose (from the reel) to the 1200 PSI Quick Disconnect on the front of the tank, below the switch plate. Refer to illustration on page 3.
6. Plug in the two power cords. Do not connect both cords to the same outlet. Although all systems on the high pressure side of the machine may work correctly if you are not on two circuits, a circuit breaker in a wall panel may trip.
Turn on the high pressure pump by placing the HIGH PRESSURE/HEAT selection switch (2) in the UP position, to select the High Pressure Pump. **NOTE:** The high pressure pump and the heat can not operate at the same time. **NOTE:** this switch is off when it is set to the middle position and neither the high pressure pump or the heater is selected.
7. Prime the 1200 psi pump using the 'power prime' system: turn on both the pump and the vacuum, cover the hole in the hose barb with your hand, then depress the Power Prime Pedal. This will pull trapped air through the pump and into the recovery tank, priming the pump. You will notice a 'tone' change from the pump (smoother, with less of a rattle), and the water being pulled into the recovery tank will change to a clear, solid stream. Priming may take 20 - 60 seconds and will require a full solution tank. When the pump is primed, let off the Power Prime Pedal, and turn off the pump and the vacuum. Depress the Power Prime Pedal once again, for a moment, to release the line pressure. Proceed to the next step.
8. Add defoamer to the recovery tank.
9. Attach the solution spray hose to the solution quick disconnect. Attach the vacuum hose to the hose barb on the front of the recovery tank. Pull the hoses out from the reel. Attach the other ends of the hoses to the cleaning tool.
10. Turn on the vacuum (3) and turn on the dump pump (5). Begin spraying. **NOTE:** the dump pump will automatically turn on and turn off as the tank fills and then empties (refer to drawings on page 8).
11. When the job is finished, turn off the water source. Vacuum the remaining solution from the holding tank into the recovery tank.
12. Run a few gallons of clean water through the system. Completely 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.
13. Unplug the power cords.
14. Clean the machine and the tool.



CAUTION: Use care when handling hazardous chemicals.

CAUTION: Never leave the 1200 psi pump running when you are not actively using it.

DANGER: Do NOT use solvents, or any chemicals that may be flammable, explosive or combustible.

LOW PRESSURE AND HEAT

1. Before each use, inspect the machine, hoses, and cleaning tools for cleanliness and completeness. Make sure hoses are in good condition and the spray nozzle(s) is tight.
REFER TO THE AUTO FILL AND AUTO-DUMP INSTRUCTIONS ON THE FOLLOWING PAGE
2. If you choose to use the auto-dump, connect the dump hose to brass hose fitting on the back of the machine, and place the open end of the hose in a drain and make sure the recovery tank drain hose is closed, and the lid is tight on the recovery tank. Otherwise, just make sure the brass cap is on the hose connector.
3. If you choose to use the auto-fill feature, connect the fill hose to the autofill valve over the solution tank. Place your gallon of chemical in the chemical basket, and put the weighted foot valve in the gallon. Turn on the water source, and allow the tank to fill with solution.
If you are not going to use the autofill system, just fill the tank with water and cleaning chemical. Follow chemical directions regarding dilution and mixing. Do not use harsh chemicals; they may damage seals in pumps and valves, and cause the pump to wear prematurely. **NOTE:** using warm water in the tank may improve the efficiency of the heat exchanger when cleaning with heat, but never use water with a temperature exceeding 54°C/130°F .
4. Select 'HEAT" by moving the HEAT/HIGH PRESSURE switch towards the thermometer symbol. **NOTE:** this switch is off when it is set to the middle position and neither the high pressure pump or the heater is selected. When set to the bottom position, the heat is selected; the red light will come on and stay on. **NOTE:** The heater and the high pressure pump can not operate at the same time.
5. Plug the power cords into separate circuits. Although all systems in the machine may work correctly if you are not on two circuits, a circuit breaker in a wall panel may trip.
6. Press the '**power prime**' pedal (located on the rear, lower left of the machine) for a moment to release any back pressure in the pump lines.
7. Connect the solution hose to the 500 psi Quick Disconnect on the lower, right -front of the machine, and connect the vacuum hose to the hose barb on the top, left of the recovery tank. Connect both hoses to the cleaning tool
8. Turn on the 500 PSI pump (4).
9. Spray for a few seconds to fill the lines with solution. Wait two minutes to allow the heater to reach temperature.
10. Begin cleaning. It may take several cycles to heat the lines and the cleaning tool.
11. If you are not using the autofill and autodump features, turn off the pump and vacuum when the solution tank gets low, fill the solution tank, and empty and clean the recovery tank.
12. When finished with the job, turn off the water source. Vacuum the remaining solution from the holding tank into the recovery tank. Run a few gallons of clean water through the system. Drain the recovery tank by placing the drain hose over a drain or into a bucket and removing the cap. When the tank is empty, cap the drain hose and place it back in the Velcro® holder. Disconnect the hoses from the cleaning tool, and reel them up onto the hose spool.
13. Unplug the power cords.
14. Clean the machine and the tool.

NOTE: to remove the complete reel, with hoses, from the machine, pull the vacuum hose loose from the hose barb on the front of the tank, and push the short piece of vacuum hose into the center of the hose spool. Disconnect the solution hose quick coupling. Grasp the spool on both sides, 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.

USING THE AUTO-FILL AND/OR AUTO-DUMP FEATURES

AUTO-FILL

1 Chemical Supply:

- Place the container of concentrated chemical cleaner -- use a product with a pH between 7 and 9 to avoid premature pump wear, which would void the warranty -- in the holder on top of the recovery tank.
- Remove the cap on the container.
Insert the end of the clear tubing with the foot valve into the container. **NOTE:** the stainless steel weight at the foot valve will keep the valve at the bottom of the chemical container.
- The chemical flow may be turned on or off by applying the pinch clamp to the tubing, between the chemical container and the autofill valve.

2 Chemical Injection Flow Rate:

- Metering tips are used to control the rate at which the cleaning chemical feeds into the supply water. The following table illustrates the ratio of chemical, in ounces, to each gallon of water coming into the tank. The tips are color coded for ease of use.
- **NOTE:** the flow rate values in the table are based on a chemical with the same viscosity as water.

METERING TIP FLOW RATES			
COLOR	OZ/GAL	COLOR	OZ/GAL
TAN	0.60	WHITE	3.00
ORANGE	0.70	GREEN	3.50
TURQUOISE*	1.00	BLUE	4.00
PINK	1.25	YELLOW	5.25
LIGHT BLUE	1.75	BLACK	6.75
BROWN	2.00	PURPLE	10.50
RED	2.75	GRAY	14.00

* **NOTE:** the turquoise colored tip is factory installed (provides a 1 oz. to 1 gal. ratio -- see table).



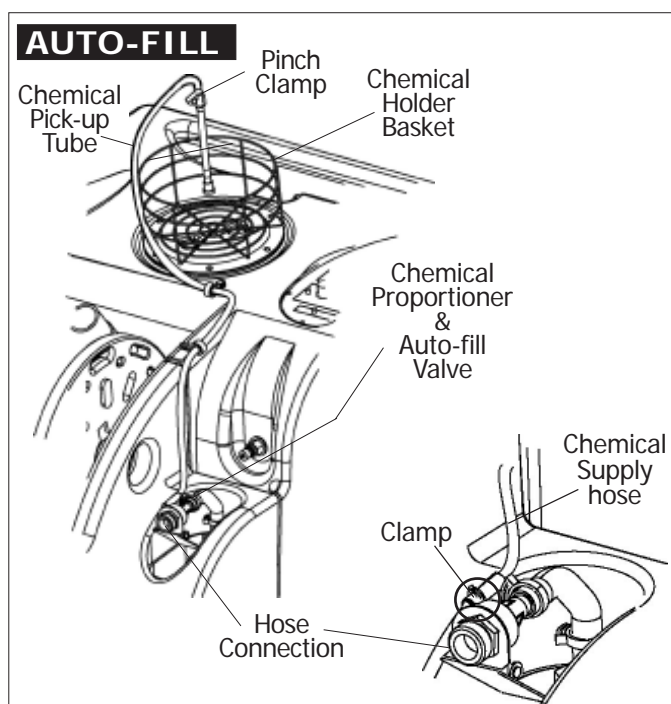
CAUTION: USE CARE WHEN HANDLING HAZARDOUS CHEMICALS.
DANGER: DO NOT USE SOLVENTS, OR ANY CHEMICALS THAT MAY BE FLAMMABLE, EXPLOSIVE OR COMBUSTIBLE.

3 Operation:

- Attach a 3/4" garden hose to the autofill valve, and connect the other end of the hose to your water source.
- Make sure the float that hangs from the autofill valve into the tank is free of obstruction and can move freely.
- Turn on the water supply.
- As the tank fills, the chemical concentrate will be drawn from the chemical container, will pass through the clear tubing to the valve, and will be mixed into the water stream.
- The autofill float will automatically shut-off the flow of incoming water when the tank is nearly full, and it will allow the valve to open again once the water level has dropped to a predetermined level.

TO CHANGE METERING TIP

To change the metering tip: find the black, plastic hose-clamp on the chemical feed tubing, near the Auto-fill valve. Refer to illustration. Open the clamp by sliding the two ends of clamp (where they come together) apart sideways, in opposite directions, with a screwdriver, until the clamp opens. Then pull the clear chemical supply hose off the hose barb at the Auto-Fill valve. Unscrew the metering tip from the end of the hose barb. Select the tip that will provide you with the appropriate chemical ratio (see chart, above). Screw the selected tip into the end of the hose barb. Snug-up the tip, but do not overtighten. Slide the hose back over the tip and the hose barb. Install the clamp onto the hose so it is over the hose barb, and squeeze the clamp closed.



AUTO-DUMP

1 **Operation:**

Before each use: if necessary, unscrew the stainless steel filter inside the recovery tank and clean it. Also make sure the float in the recovery tank is clean.

- Attach a 3/4" garden hose to the dump pump outlet fitting on the back of the base of the machine. Refer to illustration below.
- Run the other end of the hose into a drain.
- Turn the dump pump switch ON (switch is located on the switch panel on the top of the machine).
- **NOTE:** the dump pump will only run when the tank is full enough to activate the float switch.
- **NOTE:** the pump is 'self-priming.' You should see water start to flow within 30 seconds of the pump turning on. If water does not begin to flow, check the filter to see if it is plugged with debris.

After each job: run clear water through the dump pump to wash out any chemical residue. Remove and clean the stainless steel filter in the back of the tank. Reinstall the filter once it is clean. Clean and empty the recovery tank.

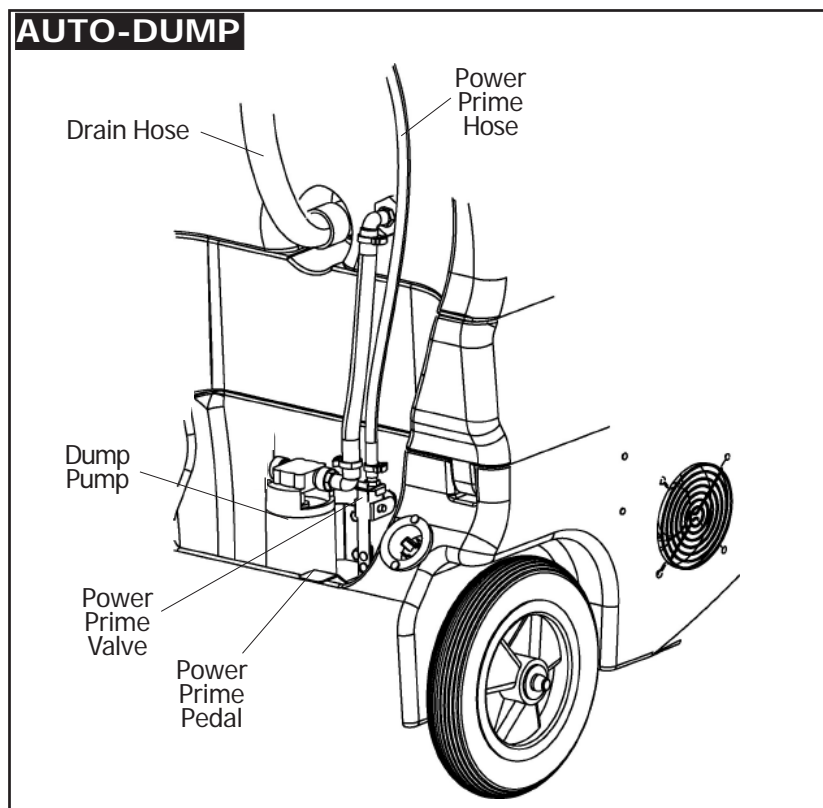


DANGER: DO NOT USE SOLVENTS, OR ANY CHEMICALS THAT MAY BE FLAMMABLE, EXPLOSIVE OR COMBUSTIBLE.

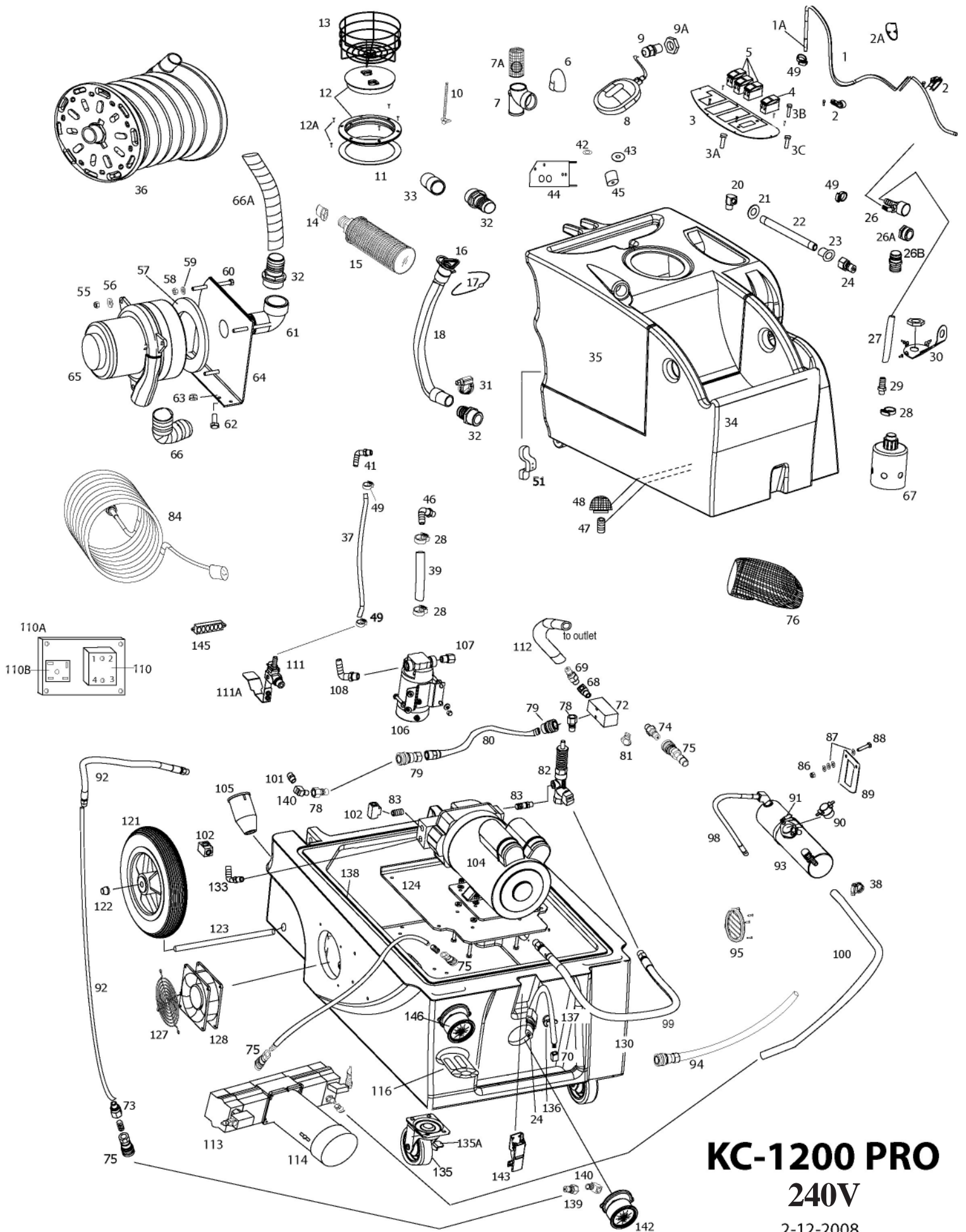


CAUTION: always use a defoamer in the recovery tank to prevent water or foam from entering the vacuum motor.

CAUTION: if the dump pump is not going to be used for a month or longer, remove the pump impeller cover, pull the rubber impeller out, clean it and apply a generous coating of petroleum jelly to the impeller before replacing it in the pump. Make sure the gasket is in place and in good condition before you screw the impeller cover back on.



DANGER: always unplug the King Cobra from the electrical outlet(s) before cleaning or maintaining. Certain internal components are electrically live, even with switches in their OFF position.



KC-1200 PRO 240V

2-12-2008

KING COBRA-1200 PRO

PART LIST

240 V

ITEM	PART No.	DESCRIPTION	ITEM	PART No.	DESCRIPTION	ITEM	PART No.	DESCRIPTION
1	TA-37C	Hose, Chemical Pick-up, 54"	56	15	Washer, flat, 5/16"	122	27A	Axle cap
1A	1199	Check valve & filter	57	959	Gasket, for vacuum	123	1105	Axle, 1/2" X 21"
2	79B	Wire tie, white, 8"	58	320AB	Nut, finish, 5/16	124	1158	Plate, pump mounting
2A	1323	Clamp, quick, pinch opening	59	34	Washer, split lock	125	16	Locknut, 6-32
3	1303A	Switch Plate	60	179	Bolt, 5/16 X 4"	126	2B1	Screw, 6-32 X 2"
3A	227	Light, green	61	1131	Elbow, PVC	127	2015	Guard, fan
3B	228	Light, red	62	5	Bolt, 1/4-20 X 3/4"	128	2018	Fan, cooling, 100CFM, 240V
4	56220001	Switch, rocker on-off-on	63	8	Locknut, 1/4-20	130	BKCR BLK	Base compartment, black
5	2138	Switch, white lamp	64	926	Manifold, vacuum	131	108A	Elbow, 90 degree, pump outlet
6	921	Elbow, PVC	65	FP385	Vacuum motor, w/gasket, complete	132	950F	Pump, 300-500 psi
7	1140	PVC, "T"	66	430	Vacuum hose, 1-1/2" X 7.75"	133	1081	Elbow, 90 degree, pump inlet
7A	929A	Vac shut-off ball, Filter, vacuum inlet	66A	1136	Vacuum hose, 1-1/2" X 25", clear	135	905	Castor, 4"
8	2068	Float, Auto-dump	67	1310A	Float, Auto-fill, high temp.	135A	905A	Brake, for castor
9	230	Cord Retainer, water tight	68	216	Elbow, 90 degree	136	1413	Clip Holder, for hose
9A	230A	Nut, nylon	69	221	Quick disconnect, male, open	137	FP416	Hose assy, low press. outlet
10	805	Chain, lid retaining	70	1280	Elbow, brass, 1/4 fpt X 1/4 fpt	138	1043A	Gasket
11	1074	Gasket, recovery lid	72	1306A	Manifold, fluid direction	139	219	Quick disconnect, male
12	2086	Lid, and ring, 6"	74	221	Quick disconnect, male, open	140	91	Elbow, 90 degree
12A	1156	Screw,	75	220	Quick disconnect, female, open	142	1165	Gauge, psi pressure
13	1169	Basket, chemical container	76	2088	Pre-filter, vacuum inlet	143	908A	Latch
14	937	Bushing, PCV	77	1280	Elbow, brass, 1/4 fpt	144	21C	Screw, 8-32 X 5/8"
15	1310	Filter, Auto-fill	78	219	Quick Disconnect, male, open	146	951B	Gauge, 500 psi pressure
16	1060	Plug, drain hose	79	220	Quick Disconnect, female, open			
17	1130	Strap, velcro	80	1329	Hose, power prime inlet, 28"			
18	1060A	Hose, drain	81	211	Plug, 1.4 mpt			
20	91	Elbow, 90 degree, brass, 1/4 mpt	82	1164	Valve, pressure regulator			
21	1141	Washer, S/S	83	92A	Nipple, S/S, 1/4 mpt			
22	1146	Pipe, S/S, 1/4 mpt both ends	84	2019	Power cord			
23	1143	Spacer	85	946	Hose, 1/2" X 10"			
24	45	Quick Disconnect male, 1/4 pt	86	8	Lock nut, 1/4-20			
25	1308	Hose, from autofill valve to float, 5"	87	233	Washer, nylon, black			
26	1307	Valve, auto fill, with metering barb	88	4	Bolt, 1/4-20 X 1"			
26A	1184	Hose connector	89	455	Bracket, heater mount			
27	1308	Tubing, 1/2" ID X 5"	90	399	Thermostat switch			
28	1400	Clamp, hose, quick disconnect	91	76	Hose Clamp, 2-3/4"			
29	1189	Hose Barb, 1/2" hose, mpt	92	FP420	Hose, Pump to Gauge, complete			
30	1320	Bracket, Auto-fill valve mounting	93	FP371A	Heat Exchanger, complete, 240V			
31	156	Hose clamp, 2-1/4"	95	928	Louver, 3", includes screws			
32	907	Hose Barb, 1-1/2" hose	98	1278	Hose, heater to outlet			
33	1137	Adaptor, ABS, 1-1/2"	99	1329	Hose Assembly, 26", bypass			
34	HKCR-1	Holding Tank, white	100	925	Hose, 3/8" X 45" pump to heater			
35	VKCR-1	Recovery Tank, white	101	141	Coupling, 1/4 fpt both ends			
36	FP414	Reel, with hoses, complete	102	152	"T", brass/ 1/4 npt			
37	1309	Hose, power prime outlet, 3/8" X 21.25"	104	1159A	Pump & motor, complete, 240V			
38	166	Hose clamp	105	230	Strain relief			
39	1308	Tubing, 1/2" ID X 10"	105A	2019	Power cord, 25 ft.			
41	1115	Elbow, 90 deg, 3/8" hose X 1/4 mpt	106	2067B	Pump, auto-dump, 240V			
42	290	Washer, rubber, 70 Durometer	107	1324	Hose Connector, dump pump out			
43	1345	Washer, flat, S/S, 1/4" ID X 1" OD	108	1325	Elbow, auto-dump in			
44	1350	Bracket, for auto fill float	110	4405A	Relay, 25 Amp, 120-240V			
45	1349	Spacer, bushing	110A	2025	Heat sink plate			
46	1113	Elbow, 90 deg, 1/2" hose X 1/2 mpt	110B	1579	Rectifier, bridge			
47	92B	Nipple, PVC, 1/2 npt	111	1164	Valve, power prime			
48	207A	Filter, Pump inlet	111A	1299	Pedal, power prime			
49	1402	Clamp, quick disconnect, small	112	FP415	Hose, manifold to outlet, Hi Press.			
51	CWKC-BLK	Cord Wrap, black	117	216	Elbow, 90 degree, brass			
55	7	Locknut, 5/16" jam	121	2084A	Wheel, 10"			

MISCELLANEOUS PARTS

1159B	Pump complete with cam & bearing
1159	Motor, 1.5 HP, for 1200 psi pump
953A	Metering tip replacement kit
FP256	Heat repair kit, includes cutout, bimetallic switch, & heat sink grease
FP350	Reel complete, with hoses, 25'
919E	Hose, vacuum with cuffs, 25'
FP414	Hose, solution, complete, 25'
FP350C	Hose, solution & vacuum, complete, no reel, 25'

SPECIFICATIONS:

Rotomolded Body:	Lifetime Warranty
Vacuum:	7.2" 3-stage
VAC Shutoff:	Ball Float
Pump:	Positive displacement, fully adjustable 0-500 psi & Positive displacement, 1200 psi, 2.2 gpm
Waterlift:	140"
Heat:	Instant to 212 °F
Heater:	2000 Watts
Wand:	Stainless steel, single bend, twin tip
Weight:	170 lbs.
Dimensions:	39"H x 21"W x 36" L

KC-1200 PRO 240V DUAL SURFACE EXTRACTOR

NOTES:



208-772-0573 • 800-257-7982 • FAX: 208-772-0577

Coeur d'Alene, Idaho

VISIT US AT: <http://www.usproducts.com>