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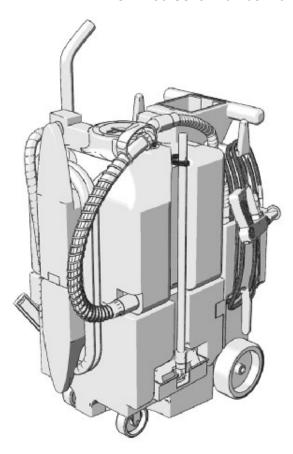
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Operator & Parts Manual

KaiVac® 1700 Series

1715 Serial Number 409- 1750 Serial Number 13409-CE1750 Serial Number 497-



Revision Sheet

Release No.	Date	Revision Description
101513	10/15/13	Operator & Parts Manual Released
121713	12/17/13	Modified the Rotomold Warranty to 5 years.
080816	08/08/16	Modified the Safety Warnings to ETL-C requirements

NOTE: Specifications and parts are subject to change without notice

Kaivac, Inc.

www.kaivac.com

401 S. Third Street

Hamilton, OH 45011

OPERATOR & PARTS MANUAL

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1.0 **GETTING STARTED**

1.1 **Limited Warranty Protection Plan**

The Kaivac has been engineered and tested to provide long lasting performance. This warranty covers defects in workmanship or materials under normal use and service from the date of purchase.

Kaivac, Inc. warrants the following components to be free from defects in materials and workmanship for these time periods:

- 1.) Extended Warranty for end users who use only Kaivac chemicals for the life of the machine.
 - ♦ 5 years on rotationally molded parts
 - 3 years on other parts (excluding wear items)
 - ♦ 1 year on labor
- 2.) Standard Warranty (for approved non-Kaivac chemicals)
 - 1 year parts and labor
- 3.) Chemicals that have not been approved by Kaivac (If uncertain, please contact Kaivac to verify your chemical before using).
 - No warranty

All Kaivac replacement parts are guaranteed for 90 days from the date of installation. Normal wear items such as wheels, hoses, seals, gaskets, cords, casters, squeegees and GFCI are excluded from warranty coverage.

All warranty claims must be accompanied by a Return Authorization Number (RAN), which is available by calling the Kaivac, Inc. Customer Service Department. No returns will be accepted without a RAN.

This warranty does not apply to return freight costs, damage or defect caused by accident, negligence, misuse, fire or repair done by anyone other than a Kaivac authorized repair center. In no event shall Kaivac, Inc. be liable for incidental or consequential damages, or any damages to persons or property.

Please Note: Under no circumstances will the seller be liable for any loss, damage, expenses or consequential damages arising in connection with the use or inability to use seller's product. Kaivac, Inc. reserves the right to make changes or improvements to its equipment without notice. Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty is in lieu of any other warranty expressed or implied, including any warranty of merchantability or fitness for a particular purpose.

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1.2 WARRANTY REGISTRATION FORM

To be completed and mailed or faxed by the customer purchasing equipment. Return this warranty card within ten days of purchase.

Purchased By:			
Name:		Title:	
Company:			
Street Address:			
City:	State	e: Zip Code:	
☐ KV1750	☐ KV1250	☐ KV2150	☐ KV1715AC
☐ KV1715	☐ KV1215	☐ OMNIFLEX Pump Box	☐ OMNIFLEX Wet/Dry Vac
Serial Number:			
	Туре	of Business	
☐ School/University☐ Hospital/Health Care	☐ Contr ☐ Indus	act Cleaner trial	☐ Office ☐ Other:
	Intended Uses	(check all that apply)	
Restroom Cleaning		round Machines	☐ Classroom Cleaning
☐ Floor Stripping☐ Kitchen Cleaning☐ Carpet Extraction	☐ Stairwell Cl ☐ Lockers & S ☐ Hallway Cle	Showers	☐ Other: ☐ ☐

Thank you for registering for our warranty program.

Please return completed forms to:

Kaivac, Inc. 401 S. Third Street Hamilton, OH 45011 Or Fax to: (513) 887-4601



1.3 SAFETY PRECAUTIONS

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

▲ CAUTION: TO REDUCE THE RISK OF INJURY, READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

▲ WARNING RISK OF ELECTROCUTION: ▲

- ◆ Connect to a properly grounded outlet. Do not remove ground pin.
- ♦ Inspect cord before using do not use if cord is damaged.
- ♦ Keep all connections dry and off the ground.
- ♦ Do not touch plug with wet hands.
- ◆ This product is provided with a ground fault circuit interrupter built into the power cord. If replacement of the plug or cord is needed, use only identical replacement parts.
- ◆ Test the ground fault circuit interrupter (GFCI) before each use.
- ◆ Do not pull or carry by cord, use cord as a handle, close door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord.
- ♦ 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.
- ◆ Use extra care when cleaning on stairs.
- ♦ Keep the cord away from heated surfaces.
- ♦ Do not spray liquid from the Kaivac onto electrical outlets or on any electrical devices.
- ◆ Turn off the unit before unplugging.
- ♦ Do not pull on the cord to unplug. Grasp the plug at the outlet and pull.

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER – Improper connection of the equipment-grounding conductor can result in a risk of electrocution. Check with a qualified electrician or service personnel if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use any type of adaptor with this product

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION

This pressure washer is provided with a ground-fault circuit-interrupter (GFCI) built into the plug of the power-supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection.

1.3 SAFETY PRECAUTIONS (CONTINUED)

EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole cord connectors that accept the plug from the product. Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cord before using and replace if damaged. Do not abuse extension cord and do not pull on any cord to disconnect. Keep cord away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. WARNING -- To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch plug with wet hands.

WARNING: When using this product, basic precautions should always be followed, including the following:

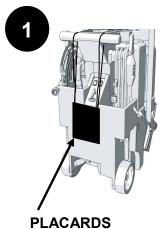
- Risk of injection or injury to persons do not direct discharge stream at persons.
- ◆ INJECTIÓN HAZARÓ: ÉQUÍPMENT CAN CAUSE SERIOŬS INJURY IF THE SPRAY PERMEATES THE SKIN. DO NOT POINT THE GUN AT ANYONE OR ANY PART OF THE BODY. IN CASE OF PERMEATION, SEEK MEDICAL AID IMMEDIATELY;
- ◆ THIS SYSTEM IS CAPABLE OF PRODUCING 500 PSI (345 kPa). TO AVOID RUPTURE AND INJURY, DO NOT OP-ERATE THIS PUMP WITH COMPONENTS RATED LESS THAN 500 PSI (345 kPa) WORKING PRESSURE (INCLUDING BUT NOT LIMITED TO SPRAY GUNS, HOSE, AND HOSE CONNECTIONS); and BEFORE SERVICING, CLEANING, OR REMOVAL OF ANY PART, SHUT OFF POWER AND RELIEVE PRESSURE;
- ◆ To reduce the risk of injury, close supervision is necessary when a product is used near children.
- Know how to stop the product and bleed pressures quickly. Be thoroughly familiar with the controls.
- ♦ Stay alert watch what you are doing.
- ◆ DO NOT operate the product when fatigued or under the influence of alcohol or drugs.
- ♦ Keep operating area clear of all persons.
- ◆ DO NOT overreach or stand on unstable support. Keep good footing and balance at all times.
- ◆ DO NOT use to pick up flammable or combustible materials.
- ♦ DO NOT operate without the float installed. If float is removed, reinstall by screwing back into place.
- Follow the maintenance instructions specified in the manual.

Personal Protective Equipment (PPE): It is recommended to wear proper personal protective equipment as required by the chemical product label instructions used in conjunction with the Kaivac.

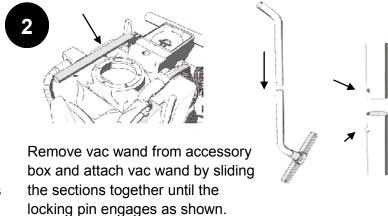
FOR INDOOR USE ONLY

INTENDED FOR COMMERCIAL USE

2.1 OUT OF BOX SETUP INSTRUCTIONS

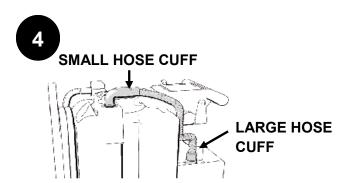


Open Accessory
Box and remove
the placard and
wrap around the
Push Handles of
your Kaivac
Machine. Remove
the Tote Bag and
set aside for filling
with remaining tools
from the Accessory
Box.

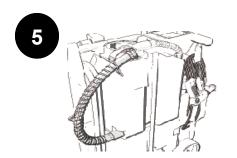




After removing machine from container, attach the plastic elbow to the vac tank as shown above.



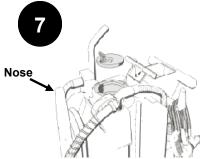
Attach vac motor hose to elbow and vac motor inlet as shown above.



Make sure dump hose is secured to the dump hose cap and tether.



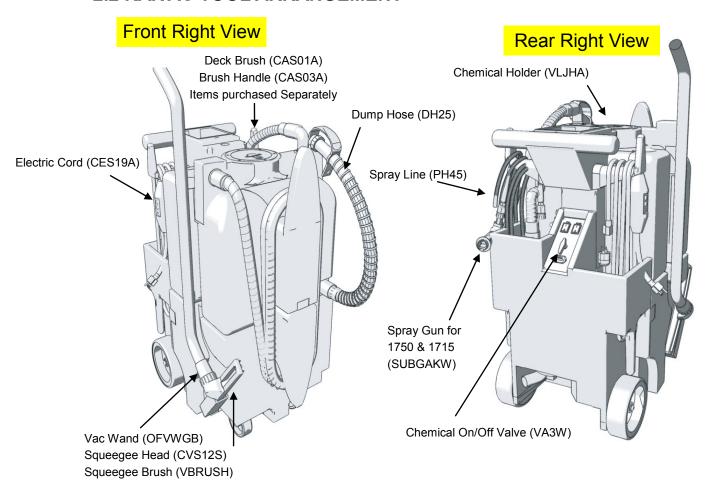
Remove the tools from the accessory box and place them in the appropriate locations as shown above.



Phone: 1-800-287-1136

Make sure vac lid is on vac tank and place remaining tools into tote bag and hang on nose.

2.2 KAIVAC TOOL ARRANGEMENT



Bottom View Overhead View Front Vac Hose (VH25) Slinky Hose (VHST20) Left Right - Window Squeegee (CAA06) KaiDrain (CVS14) Metering Tips **HEPA** Cover (MTIPSNEW) Placards (PLCRD)

(HCOVER)

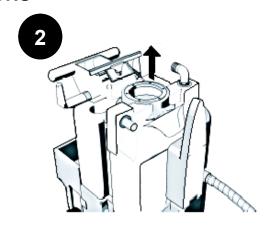
2.3 PREPARING YOUR KAIVAC

1.	Fill machine with clean, cool water.	
2.	Prepare the cleaning solution you will be using by attaching the chemical feed line and cap to the top of your chemical bottle and selecting the proper metering tip. (See placard for metering tip information)	
3.	Check machine for all tools and supplies needed to complete task. See "Tool Arrangement" in Section 2.2 of this manual.	
4.	If using a cleaning product that has high foaming use a foam inhibitor to cut down on foam. Pour 2 capfuls of inhibitor in the vac hose with vac running to coat inside of hose.	VAC SWITCH ON BURBLE BUSTER
5.	Check all hoses and spray lines for damage prior to use. If damage is found, do not continue until proper repairs are completed.	
6.	Plug in machine and test GFCI (Ground Fault Circuit Interrupter) to ensure it is working properly. You are now ready.	Reset

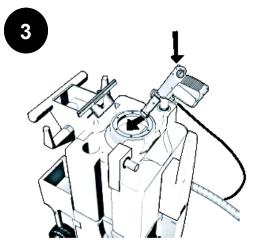
2.4 VAC TANK CLEANOUT INSTRUCTIONS



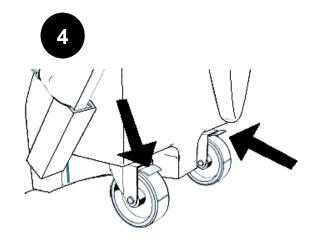
Disconnect dump hose and empty contents into proper location.



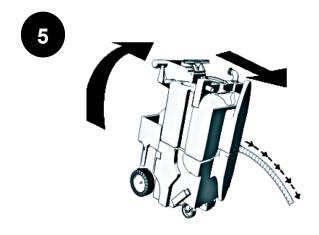
After dumping is complete, remove vac lid from vac tank.



Using pressure gun or other water source, rinse inside of tank thoroughly.



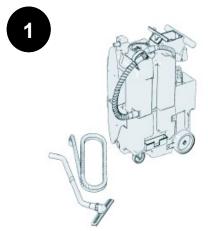
After tank has been rinsed, lock the front caster wheels by pressing down on the locks as shown.



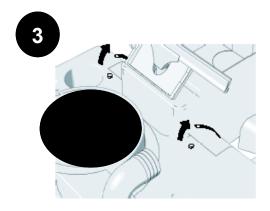
After caster wheels have been locked, tip the machine to the left and slightly forward to allow the remaining water to drain.

Re-attach dump hose and unlock wheels.

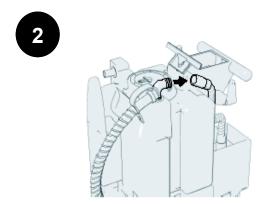
2.5 VAC TANK REMOVAL INSTRUCTIONS



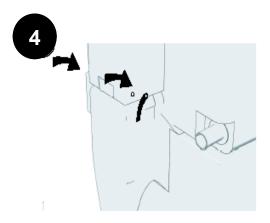
Remove vac hose and vac wand before removing vac tank.



Un-snap straps holding the vac tank to the lid water tank upper assembly.

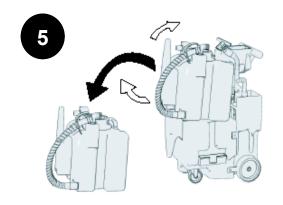


Disconnect vac inlet hose from 90 degree fitting on vac tank



Un-snap straps holding the vac tank to the water tank lower assembly.
(2 locations - one on each side)

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Slightly pull the bottom section of the vac tank out while tipping it backwards.

Lift and pull the vac tank away from the unit.

2.6 S.I.M.P.L.E PROCESS

*Applicable to all units, KV1700 Series shown for illustration.

Fill with clean, cool water

 $S_{\text{et-up}}$



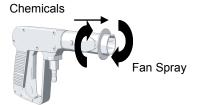
Add 1 cap of KaiDri (for spot-free rinsing)



Select metering tip and insert into cap barb



nject



LOW Pressure Mode



Fan Spray



Manual

Brush



Manually brush heavily soiled areas



Pressure wash and rinse



HIGH Pressure Mode





Loop







 $\mathsf{E}_{\mathsf{xtract}}$







3.1 **MACHINE MAINTENANCE**



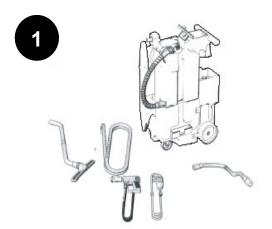
▲ CAUTION Always make sure machine is unplugged before lifting electric cover assembly

Item

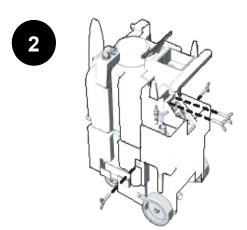
Procedure

Floor	Check condition of squeegee blades and wheels on the floor tool.
Squeegee	Rough floor surfaces will cause the blades and wheels to wear out more quickly. Replace as necessary
Spray Gun	Check spray pattern. If spray pattern will not pinpoint, clean orifice by removing it with an Allen wrench and flushing. Replace if needed.
	If nozzle becomes difficult to move from high to low pressure lubricate nozzle with lithium grease.
Pressure	Wipe clean after each use.
Hose	Check for cuts or frays in the hose jacket, particularly at the end of the fittings. Replace hose if cuts are found
Water	Check condition of filter in water tank. Clean as needed.
Tank	Empty the water tank to prevent mildew and bacteria growth. Empty tank by dipping the vacuum hose into the water tank and transferring the water to the vacuum tank.
Vacuum Tank	Empty and flush vacuum tank.
	Clean and disinfect.
	Check the float shutoff screen to be sure it is not plugged up. A plugged filter screen restricts airflow and results in reduced suction.
Leaks	Be alert for leaks around hoses, fittings, spray wand, tanks or elsewhere.
	Discontinue use until leaks are repaired
Electrical System	The ground fault circuit interrupter (GFCI) must be tested before each use.
	Electric cord must be inspected for tears or cuts in the insulation.
Vacuum Wand	Use a wire brush or coarse brush with acid cleaner or other to remove residue from threads on the coupling and coupling nut. Apply grease when done.
HEPA Filter	Replace every 3-6 months depending on use

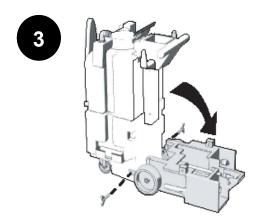
3.2 BLACK BOX REMOVAL INSTRUCTIONS



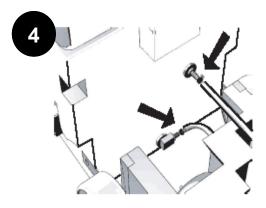
Remove all hoses, cords and tools prior to black box removal



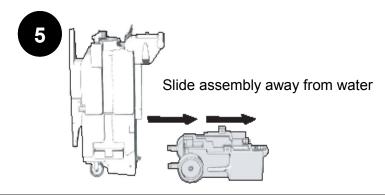
Loosen and remove the 4 wing and thumb bolts located at the top of the control panel and on the left and right of the black box mid section.



Tilt the black box assembly away from the machine until it rests on the floor. Next, remove the 2 axle strap wing bolts on either side of the machine behind the wheels.



Locate and disconnect the water line and return line behind the black box on the machine.



3.3 TROUBLESHOOTING

▲ CAUTION Always make sure machine's unplugged before lifting electric cover assembly

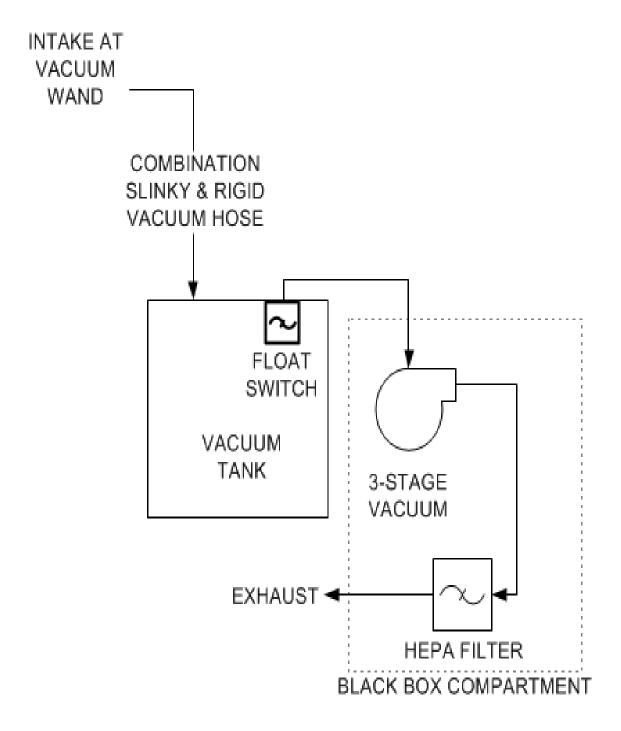
Area	Problem	Possible Cause	Solution
		Machine not plugged in	Plug machine in
		Switch not "on"	Check switches for "on"
	No Dower to number	GFCI tripped	Test and reset GFCI
	No Power to pump or vac motor	Building circuit overloaded	Check and reset circuit
Electrical		Switch wires loose	Disconnect power and check for loose wire
		Connections loose	Disconnect Power and check for loose wire under panel
		Vac motor brushes worn	Remove vac motor and repair
	Electrical burning smell	Vac motor hung up	Release pressure on hose and jog vac switch, or replace
		Pump motor hung up	Release pressure on hose and jog pump switch, or replace
		Vac tank full	Empty vac tank
		Squeegee blades or wheels worn	Replace wheels or blades and check periodically
		Float shutoff screen dirty	Spray off float screen to clean
		Float ball stuck	Tap float and release/clean
		Damaged hose	Cut and repair/replace
	No / Weak vacuum	Dump hose plug missing	Contact dealer and replace
\/		Access lid not tight	Tighten lid hand tight
Vacuum System		Vacuum hose plugged	Flush hose to remove debris
		Too much liquid in vac hose	Allow air in when vacuuming
		Vac hose still wrapped	Unwrap vac hose fully
		Exhaust plugged	Remove HEPA filter and clean
		Leak in vac tank	If repairable, clean and dry affected area and seal with silicone
		HEPA Filter clogged	Remove HEPA filter and clean
	Moisture from	Vac tank full	Dump vac tank
	exhaust	Float shutoff missing	Replace
		Excessive foam in vac tank	Use defoamer
	No air flow	Hose disconnected	Reconnect hose
Blow Dry System	Moisture from nozzle	Water in blow hose	Dry blow line
- •	Suction, not blow action	Vacuum hose connected to vac tank	Reconnect to vac motor exhaust hose

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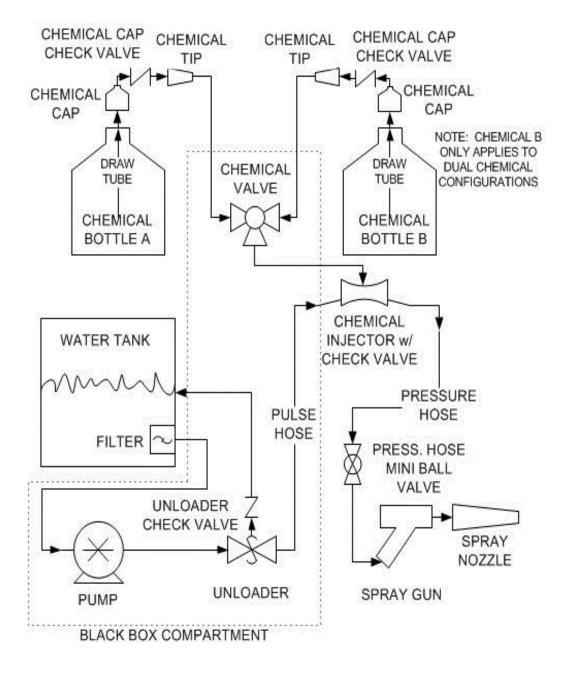
blow small amounts of compressed air into line Pulse hose damaged Repair or replace Regulator failed Replace Hose kinked Unkink and check for damage Seals in pump need replaced Remove and replace seals Bad fan pattern or pinpoint pattern on gun Debris in nozzle Remove orifice with Allen wrench and clean Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back- If fluttering or pulsing sound can be	Area	Problem	Possible Cause	Solution
Air in pump (vapor lock) Use power prime technique			Out of Water	Fill water tank
No water from pump or low pressure High Pressure System High Pressure High Pressure System High Pressure Author of low pressure Fressure hose damaged Cuick disconnect leaking Injector plugged Repair or replace Tighten or replace Remove safety cap from chemical and blow small amounts of compressed air into line Pulse hose damaged Repair or replace Remove safety cap from chemical and blow small amounts of compressed air into line Pulse hose damaged Repair or replace Remove and replace Regulator failed Hose kinked Unkink and check for damage Seals in pump need replace seals Pebris in nozzle Remove and replace seals Orifice damaged Remove and replace Out of chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong mode Metering tip plugged Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back-wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and rein-stall			Gun nozzle plugged	
No water from pump or low pressure High Pressure System High Pressure High Pressure System Water tank filter plugged Bowl filter lid loose Pressure hose damaged Repair or replace Quick disconnect leaking Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Pulse hose damaged Repair or replace Regulator failed Replace Hose kinked Unkink and check for damage Remove and replace seals placed Bad fan pattern or pinpoint pattern on gun Debris in nozzle Chemical Refill chemical Safety cap not secure Chemical valve "off" Check on / off valve Safety cap plugged Remove safety cap from chemical and blow small amounts of compressed air into line Pulse hose damaged Repair or replace Remove and replace seals placed Orifice damaged Remove and replace seals Qut of chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards. Remove and reinstall			Air in pump (vapor lock)	Use power prime technique
No water from pump or low pressure High Pressure System Remove filter cover and clean Gently tighten bowl cover Search Sepair or replace Remove safety cap from chemical and blow small amounts of compressed air into line High Pressure System Service Search Sepair or replace Remove safety cap / tighten created Season Service Safety cap / tighten Chemical Valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged High Pressure Safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards. Remove and reinstall			Gun orifice missing	Replace orifice
High Pressure System High Pressure System Pressure hose damaged Active to the pumping or low pressure Pressure hose damaged Active to the pumping of low pressure Pressure hose damaged Active to plugged Acti			Water tank filter plugged	Clean tank and filter
High Pressure System Bowl filter lid loose Gently tighten bowl cover				Remove filter cover and clean
Quick disconnect leaking Tighten or replace		, , , , , , , , , , , , , , , , , , ,	Bowl filter lid loose	Gently tighten bowl cover
Injector plugged Injector plugged Injector plugged Injector plugged Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Pulse hose damaged Repair or replace Regulator failed Replace Hose kinked Unkink and check for damage Seals in pump need replace seals placed Bad fan pattern or pinpoint pattern on gun Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong mode Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back-wards Wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Pressure hose damaged	Repair or replace
blow small amounts of compressed air into line Pulse hose damaged Repair or replace Regulator failed Replace Hose kinked Unkink and check for damage Seals in pump need replace seals Pulse hose damaged Remove and replace seals Petrover and replace seals Debris in nozzle Remove orifice with Allen wrench and clean Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards Wards Injector is in backwards. Remove and reinstall	System		Quick disconnect leaking	Tighten or replace
Regulator failed Replace Hose kinked Unkink and check for damage Seals in pump need replaced Remove and replace seals placed Bad fan pattern or pinpoint pattern on gun Debris in nozzle Remove orifice with Allen wrench and clean Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back-wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Injector plugged	Remove safety cap from chemical and blow small amounts of compressed air into line
Hose kinked Seals in pump need replace Seals Bad fan pattern or pinpoint pattern on gun Debris in nozzle Remove and replace seals Remove and replace seals Pebris in nozzle Remove orifice with Allen wrench and clean Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong mode Metering tip plugged Check metering tip for clog Injector plugged Air entering system Check for air entering system around chemical lines or injector Injector installed backwards Wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Pulse hose damaged	Repair or replace
Seals in pump need replaced Bad fan pattern or pinpoint pattern on gun Debris in nozzle Remove orifice with Allen wrench and clean Orifice damaged Remove and replace Remove and replace Remove and replace Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong mode Metering tip plugged Check metering tip for clog Injector plugged Air entering system Check for air entering system around chemical lines or injector Injector installed backwards Wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Regulator failed	Replace
Placed Bad fan pattern or pinpoint pattern on gun Debris in nozzle Remove orifice with Allen wrench and clean			Hose kinked	Unkink and check for damage
pinpoint pattern on gun Orifice damaged Remove and replace Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall				Remove and replace seals
Chemical Injection System No chemical flow No chemical flow Out of chemical Refill chemical Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back- wards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall		pinpoint pattern on	Debris in nozzle	
Safety cap not secure Check safety cap / tighten Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed back-wards Check for air entering system around chemical lines or injector Injector installed back-wards Remove safety cap from chemical and blow small amounts of compressed air into line Check for air entering system around chemical lines or injector Injector installed back-wards Remove and rein-stall		gun	Orifice damaged	Remove and replace
Chemical valve "off" Check on / off valve Safety cap plugged Replace cap Spray gun in wrong Make sure gun nozzle is pulled out away from gun chemical mode Metering tip plugged Check metering tip for clog Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Out of chemical	Refill chemical
Chemical Injection System No chemical flow No			Safety cap not secure	Check safety cap / tighten
Chemical Injection System No chemical flow No			Chemical valve "off"	Check on / off valve
Chemical Injection System No chemical flow No			Safety cap plugged	Replace cap
No chemical flow Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards Injector installed backwards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			_	
No chemical flow Injector plugged Remove safety cap from chemical and blow small amounts of compressed air into line Air entering system Check for air entering system around chemical lines or injector Injector installed backwards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall	Chemical Injection		Metering tip plugged	Check metering tip for clog
Injector installed backwards Injector installed backwards If fluttering or pulsing sound can be heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Injector plugged	Remove safety cap from chemical and blow small amounts of compressed air into line
wards heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and reinstall			Air entering system	
Kink in Chemical line Replace Chemical line			1	heard while spraying or when machine is running it is possible that your injector is in backwards. Remove and rein-
			Kink in Chemical line	Replace Chemical line

Area	Problem	Possible Cause	Solution
	Not enough chemical	Metering tip plugged	Remove and clean
		Wrong metering tip	Check and replace per chart
Chemical Injection System continued	Chemical line blows off safety cap	Debris in injector	Remove safety cap from chemical and blow small amounts of compressed air into line
	Water back flows into chemical bottle	Bad seat on injector check valve	Check injector o - ring or replace
		Bad safety cap	Replace safety cap
	Dump hose will not empty tank	Dump hose cap not removed	Remove cap
		Clog in bottom of tank	Tip dump contents, remove debris
Dump System		Hose cut	If leak is less than 4" from tank side, cut and reattach, or replace
	Dump hose leaks	Clamp loose	Tighten hose clamp
		Dump cap missing	Replace cap
		Flat tires	Inflate tires to 30 p. s. i.
	Wheels won't roll, or they rub	Debris wrapped around axle	Check for debris on axle
Wheels and Casters		Bearings tight	Grease bearings
		Wheels too loose on axle	Remove wheel, add washers to take up slack
		Bearings falling out	Replace bearing assembly
	Floor streaks	Worn blades or wheels	Replace wheels and / or blades
	Squeegee head doesn't easily rotate when	Brass ring on wand not in groove	Loosen coupling nut and re-position head on groove
Squeegee Head	installed on wand	Coupling nut too tight	Loosen 1 / 2 turn
	Head won't stay on wand	Coupling nut cracked	Replace
		Brass ring worn	Replace
	Premature blade wear	Squeegee wheels worn	Check wheels for wear / replace
	Sucks to the floor too tightly	Squeegee wheels worn	Check wheels for wear / replace

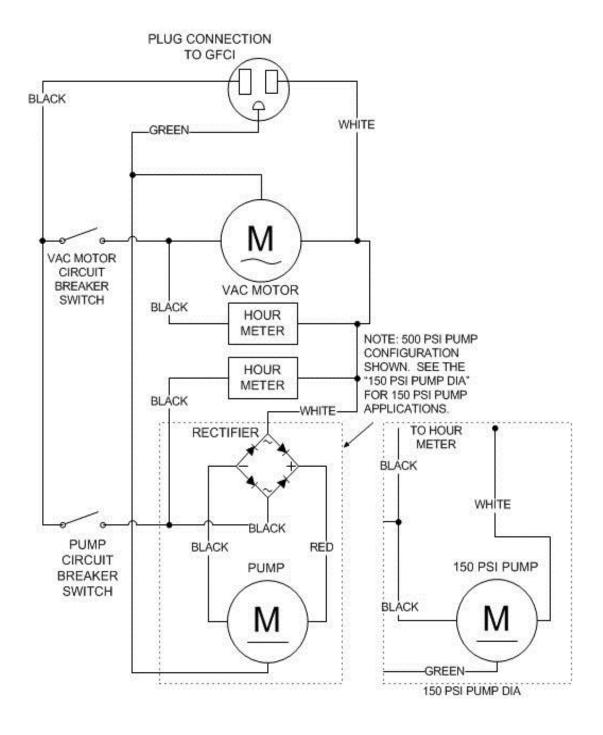
3.4 VACUUM DIAGRAM

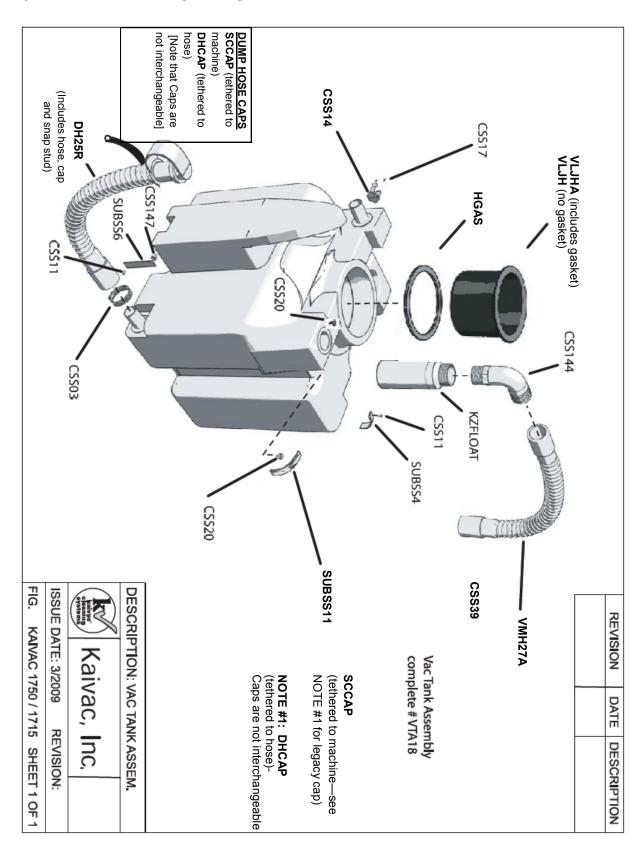


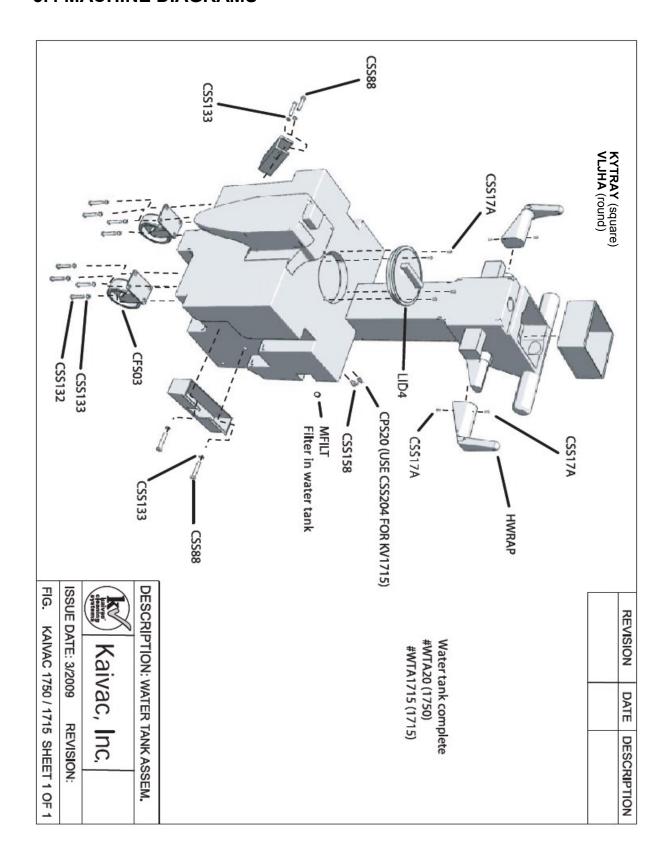
3.4 PUMP DIAGRAM

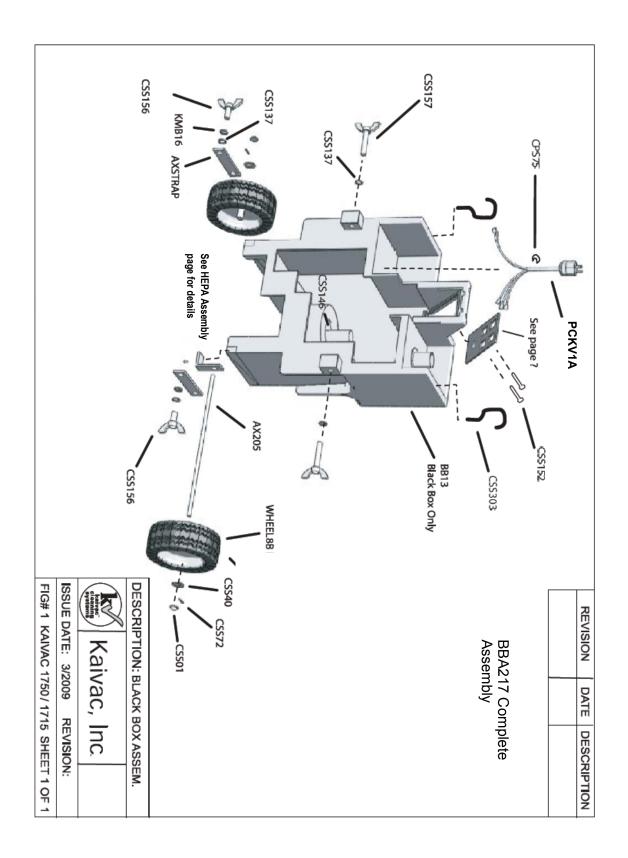


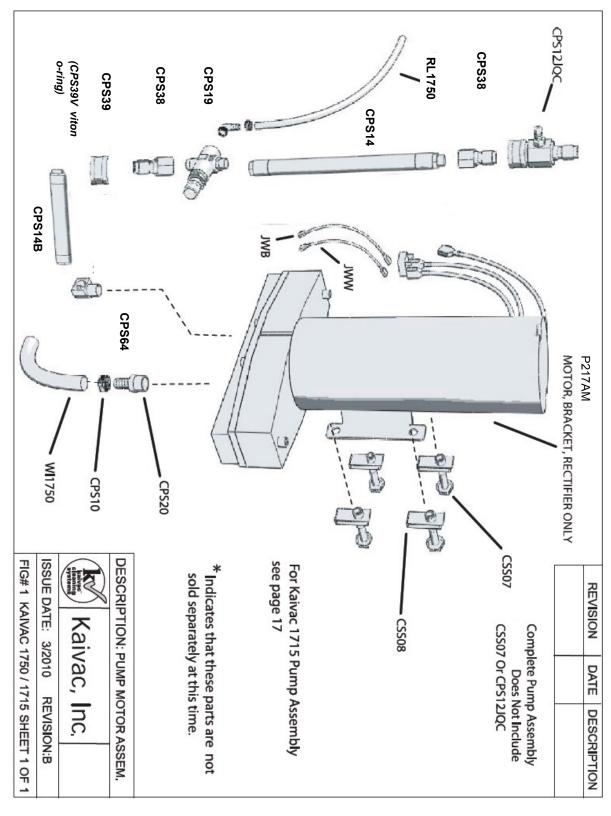
3.4 ELECTRICAL DIAGRAM



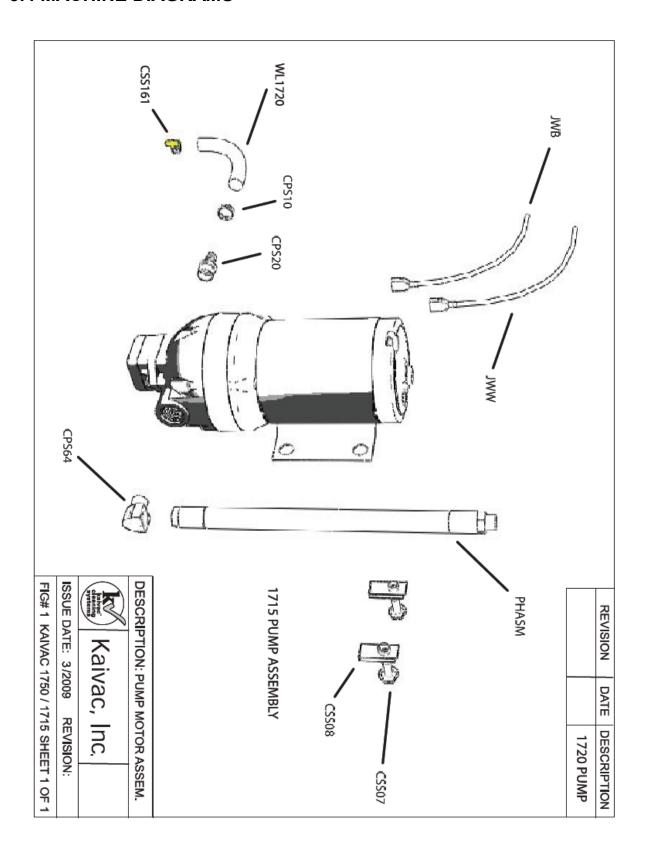


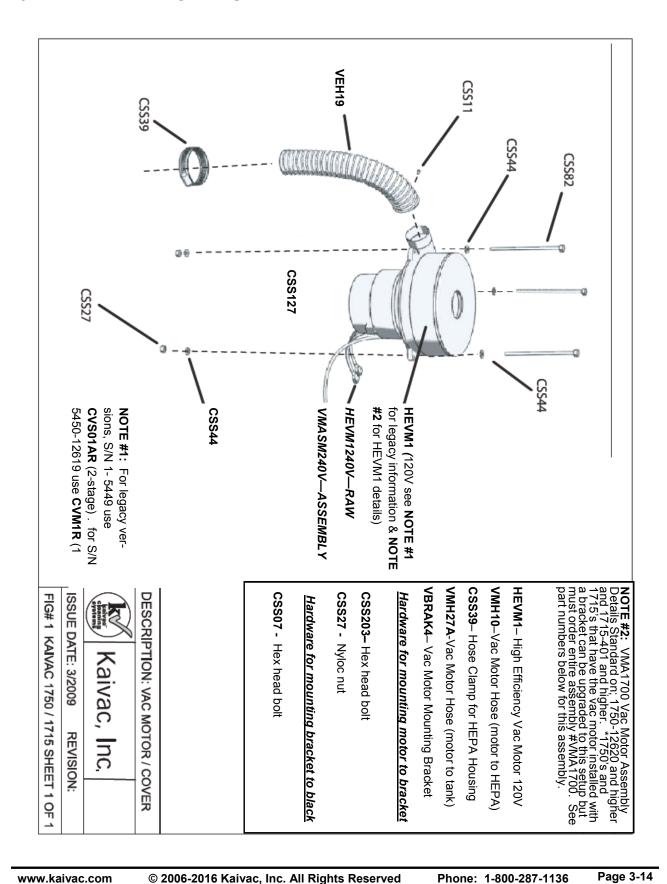




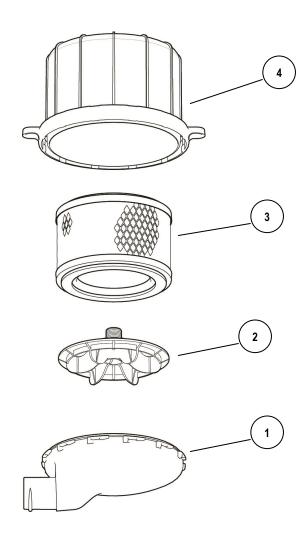


Complete pump and motor assembly - PA217 (120V) PA1750240V -2 (240V)

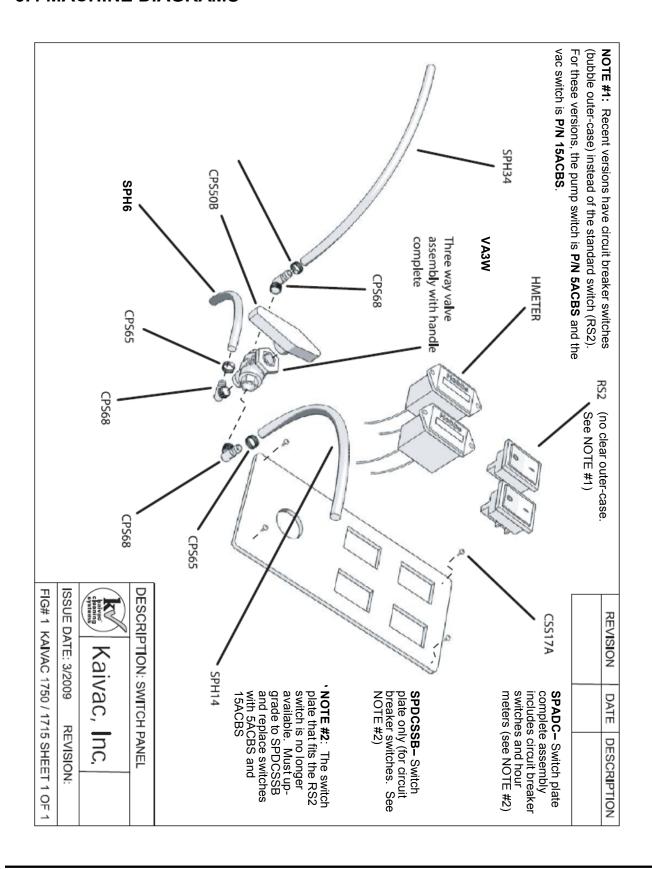


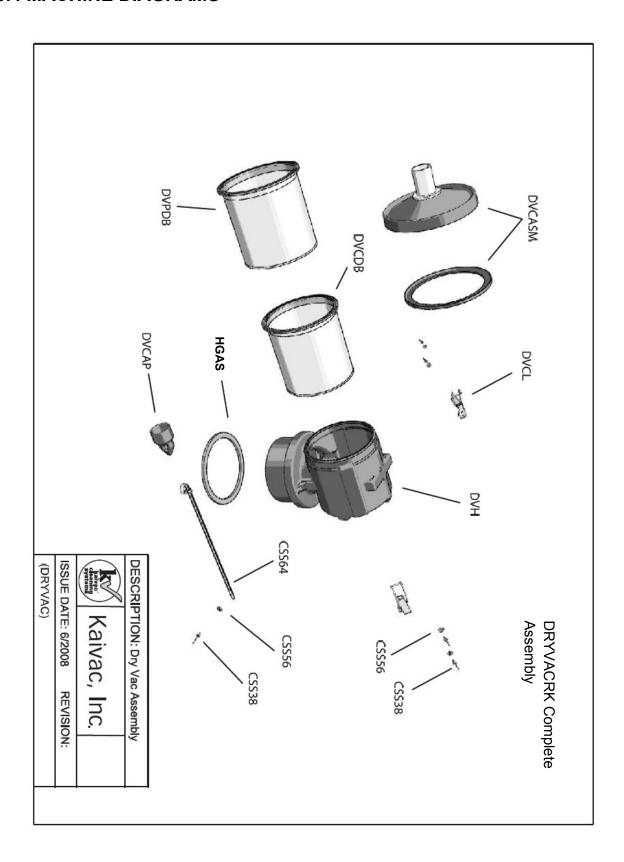


HEPA HOUSING ASSEMBLY (HEPAHA2)



#	PART NO.	PART DESCRIPTION
1	HCOVER	HEPA COVER
2	FKEEP2	HEPA FILTER KEEPER
3	HEPA	HEPA FILTER
4	HEPAH2	HEPA FILTER HOUSING





PART NUMBER - DESCRIPTION	QTY
WATER TANK ASSEMBLY 1700 (WTA20)	1
WTY20 - WATER TANK YELLOW 20 LBS 1700 S AS- SEMBLY	1
CSS158 - 90 DEG BRASS 3/8 NPT X 1/2 HS.	1
	1
CSS142 - 3/8 INCH BRASS HOSE BARB	1
MFILT - MUSHROOM FILTER	1
LID4 - LID WITH TETHER 4 1/4 IN	4
CSS17A - 8 SST SCREW 3/4	1
CSS11 - NO 10 X 3/4 SELF DRILLING	
CFS03 - 5 IN CASTER , MOUNTING PLATE	2
KMB16 - 3/8 SST FLAT WASHER	12
CSS132 - 5/16-18X1 BUTTON HEAD	8
CSS133 - 5/16 SPLIT LOCK WASHER 300 SS	8
CSS11 - NO 10 X 3/4 SELF DRILLING	4
SUBSS4 - 4 IN SNAP AND STRAP	2
SUBSS6 - 6 IN SNAP AND STRAP	2
CSS158 - 90 DEG BRASS 3/8 NPT X 1/2 HS.	1
ST16 - SIGHT TUBE 16 INCH	1
CPS70 - HOSE TIE DOWN , BLACK	1
CSS11 - NO 10 X 3/4 SELF DRILLING	1
FIG8LABEL - FIGURE 8 LABEL 1-1/4 X 3-1/4	1
WDVTC - OMNIFLEX VAC TANK TOOL CUP	2
CSS88 - 1/4-20 X 3/4 SST SCREW	2
CSS133 - 5/16 SPLIT LOCK WASHER 300 SS	2
CSS205 - 9/16 EXTERNAL TOOTH LOCK WASHER	2
\/AC TANK ASSEMBLY 1700 (\/TA19)	
VAC TANK ASSEMBLY 1700 (VTA18) VTY18 - VAC TANK YELLOW 18 LBS 1700 S ASSEM	1
	_
KZFLOAT - FLOAT SHUT OFF CSS144 - 1 1/4 NPT X 1 1/2 HOSE BARB	1
DH25 - 26" X 1.5" DUMP HOSE 2" CUFF	1
CSS03 - 1 9/16 - 2 1/2 HOSE CLAMP	1
CSS14 - 13 CLAMP , FOR TOOLS	1
CSS17 - NO 8 FLAT HEAD SQUARE SCREW	2
SUBSS11 - 11 IN SNAP AND STRAP	1
CSS20 - SNAP STUD	4
CSS147 - MALE SNAP 18-8 SS 8-32 X 1/2	2
CSS145 - BRASS INSERT 8-3221/64 LONG	2
GR2 - KV LOGO STICKER	1
NFSIL - NFSI LABEL	1
FLAGLAB - ASSEMBLED IN AMERICA FLAG LABEL	1

PART NUMBER - DESCRIPTION	QTY
BLACK BOX ASSEMBLY (BBA217, BBA1750240VEU,	4
BBA1750240VUK, BBA1750240VAUS) BB13 - BLACK BX 1700 S W/ GROMMET ASSEM	1
SP1750 - SERIAL PLATE 1750 SERIES	1
	2
SERIALLABEL - SERIAL NUMBER LABEL	1
VA3W - VALVE ASSEM. 3 WAY	
CPS65 - 1/2 IN CLAMP	3
CSS17A - 8 SST SCREW 3/4	2
HEPAHA2 - HEPA HOUSING ASSEMBLY	1
HEPALAB - HEPA WARNING LABEL	1
CSS07 - 5/16-18 X 1 HEX HEAD	2
PA217- PUMP ASSEM COMPLETE FOR KV1750	
PA1750240V-2 - PUMP ASSY COMPLETE KV1750 240V	1
CSS07 - 5/16-18 X 1 HEX HEAD	2
PCKV1A - 22 IN. POWER CORD WITH MOLDED	1
	-
CPS75 - CABLE CLAMP FOR EXT. CORD	1
CSS11 - NO 10 X 3/4 SELF DRILLING	2
CSS130 - RUBBER CUSHIONED STEEL LOOP	1
SPADC - SWITCH PANAL ASSEM DUAL CHEM.	1
CSS17A - 8 SST SCREW 3/4	6
CPS12JQC - QUICK CONNECT INJECTOR	1
CSS21F - SNAP GRIP HOSE CLAMP SIZE C	1
CSS136 - 6 NATURAL CABLE TIE	1
AX205 - AXLE 20.5 IN X 1/2 DIA 303 SST	1
AXSTRAP - AXLE STRAP	2
WHEEL8B - FLAT FREE TIRE 8IN 1/2 HUB	2
CSS40 - 1/2 DIA WASHERS	6
CSS72 - COTTER PIN 1/8 DIA X 11/4 LG	2
CSS01 - 1/2 IN PUSH CAP NUT	2
CSS303 - YELLOW CORD / HOSE HOOK	2
CSS175 - 3/4 ID X 1 3/8 OD GROMMET	1
PL002 - 7/8 - 1/4- 20 PLUG, EXHAUST PORT CAP	1
OMLAB2 - OMNIFLEX MAINTENANCE LABEL	
BLADES	1
VMA1700R- HE 120V VMA 1700	
VMASM240V - 1750 VAC MOTOR ASSEMBLY 240V	1
VAC LID, JUG HOLDER ASSEM (VLJHA)	1
VLJH - VAC LID , JUG HOLDER	1
HGAS - HEPA BLOW COVER GASKET	1

PART NUMBER - DESCRIPTION	QTY
1750 PUMP ASSEMBLY (PA217 (110V), PA1750240V-2 (240V)	1
P217AM - PUMP SERIES 217V-110/M9253F	
PUMP217240VDC - PUMP SERIES 217V-095/M11 240V	1
WL1750 - WATER LINE FOR 1750	1
RL1750 - RETURN LINE FOR 1750	1
CSS08 - 5/16-18 U-NUT	2
JWW - JUMPER WIRE WHITE 12 IN	1
JWB - JUMPER WIRE BLACK 12 IN	1
CSS127 - QUICK DISCONNECT TERMINAL	1
CSS64 - TIE WRAP FOR FILTERS	1
VAC MOTOR ASSEMBLY (VMA1700 (110V), VMASM240V (240V)	1
HEVM1 - HIGH EFFICIENCY 120V VAC MOTOR	
HEVM1240V - HIGH EFFICIENCY VAC MOTOR 240V	1
CSS127 - QUICK DISCONNECT TERMINAL	3
VEH19 - VAC MOTOR EXHAUST HOSE 19 INCH	1
CSS39 - 1 1/16 - 2 HOSE CLAMP	1
CSS11 - NO 10 X 3/4 SELF DRILLING	4
VBRAK4 - VAC MOTOR BRKT KV1700	1
CSS27 - 1/4 NYLOC NUT	2
CSS44 - 1/4 FLAT WASHER	2
CSS08 - 5/16-18 U-NUT	2
CSS203 - HEX HEAD BOLT 1/4 20 X 1 1/4	2
CSS153 - 1/4-20 U NUT FOR VAC MOTOR	2
VMH27A - VAC MOTOR HOSE SHORT CUFF	1
CVS08A - BLACK 1 1/2 HOSE CUFF	1
VALVE ASSEM 3 WAY FOR KV1750 (VA3W)	
CPS50A - 3 WAY BRASS VALVE WITH VITON SEAL	1
CPS68 - 90 DEG. 1/8 NPT MALE X	3
CPS65 - 1/2 IN CLAMP	3
SPH34 - SWITCH PANEL HOSE 34 IN	1
SPH6 - 6 INCH 1/4 NYLON HOSE	1
SPH14 - SWITCH PANAL HOSE 14 INCH	1
2	·

PART NUMBER - DESCRIPTION	QTY
1700 SERIES SWITCH PANEL ASSEMBLY (SPADC)	1
SPDCSSB - SWITCH PNL DUALCHEM FOR BREAK-	
ER SWITCH	1
HMETER - SNAP IN DIGITAL HOUR METER	2
JWW - JUMPER WIRE WHITE 12 IN	2
JWB5 - JUMPER WIRE BLACK 5 IN	2
CSS123 - QUICK CONNECT PIGGY BACK TERM	2
15ACBS - 15 AMP CIRCUIT BREAKER SWITCH	1
5ACBS - 5 AMP CIRCUIT BREAKER SWITCH	1
STANDARD ACCESSORIES 1700 SERIES	
CSS152 - 3/8-16X2 THUMB SCREW ZINC	2
CSS156 - 3/8 X 3/4 T THUMB SCREW YELLOW	2
CSS157 - 3/8 X 2 T THUMB SCREW YELLOW	2
KMB16 - 3/8 SST FLAT WASHER	6
CSS137 - 3/8 SPLIT LOCK WASHER	2
CES19A—50FT IN LINE GFCI 12,3 YELLOW/110V ONLY	1
PH45 - PRESSURE HOSE ASSEM 45 FT	1
UFH - UNIVERSAL FILL HOSE	1
SUBGAKW - PRESSURE GUN GREEN DOT	1
MTIPSNEW - METERING TIP PACK	1
CHCAPA - CHEM CAP W/SAFETY CHECK VALVE AND	
SCREEN	1
1700ACC - 1700 SERIES ACCESSORY KIT	1

PART NUMBER - DESCRIPTION	QTY
1750 ACCESSORY KIT (1700ACC)	
VH25 - VAC HOSE 25 FT	1
VHST20 - BLACK STRETCH BLACK CUFFS 20 FT	1
HC5 - HOSE CONNECTOR	1
DRWED - DOOR WEDGIE	1
TBAG - TOTE BAG	1
OFVWGB - VAC WAND W/ CLIP, STRAP & GRTBRUSH	1
VBRUSH - SQUEEGEE HEAD BRUSH COMPLETE	1
CVS12S - 14.5 SQUEEGEE HEAD WITH SS WHEELS	1
CVS13 - BLOW NOZZLE	1
CAA06 - WINDOW SQUEEGEE COMPLETE	1
CVS14 - KAIDRAIN GULPER TOOL	1
SUBBLHSST - 33 FT BLOW HOSE	1
MANUAL1750 - MANUAL FOR 1700 SERIES	1
KYQS - QUICK START CD 1700 SERIES	1
KTDVD - KAITUTOR TRAINING DVD DISK	1
PLCRD - PLACARD FOR 1200 1700 2100 UNITS	1
STF - SMART TOWEL FLYER	1
1715 ACCESSORY KIT (1715ACC)	
VH25 - VAC HOSE 25 FT	1
VHST20 - BLACK STRETCH BLACK CUFFS 20 FT	1
HC5 - HOSE CONNECTOR	1
DRWED - DOOR WEDGIE	1
TBAG - TOTE BAG	1
OFVWGB - VAC WAND W/ CLIP, STRAP & GRTBRUSH	1
VBRUSH - SQUEEGEE HEAD BRUSH COMPLETE	1
CVS13 - BLOW NOZZLE	1
CAA06 - WINDOW SQUEEGEE COMPLETE	1
CVS14 - KAIDRAIN GULPER TOOL	1
SUBBLHSST - 33 FT BLOW HOSE	1
MANUAL1750 - MANUAL FOR 1700 SERIES	1
KYQS - QUICK START CD 1700 SERIES	1
KTDVD - KAITUTOR TRAINING DVD DISK	1
PLCRD - PLACARD FOR 1200 1700 2100 UNITS	1
STF - SMART TOWEL FLYER	1