

NTC (NO TOUCH CLEANING) OPERATOR & PARTS MANUAL

P/N: MANUALNTC

Kaivac cleaning systems

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REVISION SHEET

| Release No. | Date | Revision Description |
|-------------|------|----------------------|
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NOTE: Specifications and parts are subject to change without notice

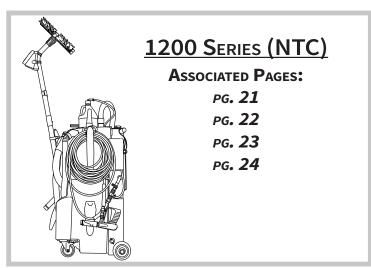
Kaivac, Inc. 2680 Van Hook Ave. Hamilton, OH 45015

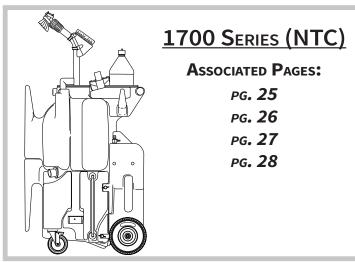
OPERATOR & PARTS MANUAL - TABLE OF CONTENTS

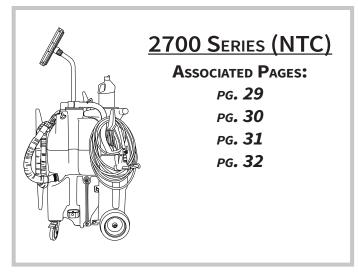
| 1.0 | Getting St | | |
|-----|------------|--|----|
| | 1.1 | PRODUCT IDENTIFICATION | |
| | 1.2 | SAFETY PRECAUTIONS: CORDED UNITS ONLY | |
| | 1.2 | SAFETY PRECAUTIONS: CORDED (CONTINUED) | 7 |
| | 1.3 | LIMITED WARRANTY PROTECTION PLAN | 8 |
| | 1.3 | Warranty Registration Form | 9 |
| 2.0 | Assembly | | |
| | 2.1 | Out Of Box Setup | 10 |
| | 2.2 | Tool Arrangement | 11 |
| | 2.3 | Preparation For Use | 12 |
| 3.0 | Maintenan | nce | |
| | 3.1 | Machine Maintenance | 13 |
| | 3.2 | Vacuum Diagram | 14 |
| | 3.3 | Pump Diagram | 15 |
| | 3.4 | ELECTRICAL DIAGRAM | 16 |
| 4.0 | Troublesho | ooting and Upkeep | |
| | | TROUBLESHOOTING | 17 |
| | 4.2 | Troubleshooting (Continued) | 18 |
| | 4.3 | TROUBLESHOOTING (CONTINUED) | 19 |
| | 4.4 | TROUBLESHOOTING (CONTINUED) | 20 |
| | 4.5 | REPLACEMENT (MONTHLY) | 20 |
| 5.0 | Parts Diag | rams and Specifications | |
| | _ | 1200 Vac Tank Assembly | 21 |
| | 5.2 | 1200 Water Tank Assembly | 21 |
| | 5.3 | 1200 Black Box Assembly | 22 |
| | 5.4 | 1200 SWITCH PANEL ASSEMBLY | 23 |
| | 5.5 | 1200 Valve Assembly | 23 |
| | 5.6 | 1250 PUMP ASSEMBLY | 24 |
| | 5.7 | 1200 Vac Motor Assembly | 24 |
| | 5.8 | 1700/17001 Vac Tank Assembly | 25 |
| | 5.9 | 1700/17001 Water Tank Assembly | 25 |
| | 5.10 | 1750/17501 Black Box Assembly | 26 |
| | 5.11 | 1700/17001 SWITCH PLATE ASSEMBLY | 27 |
| | 5.12 | 1700/17001 VALVE ASSEMBLY | 27 |
| | 5.13 | 1750/17501 PUMP ASSEMBLY | 28 |
| | 5.14 | 1700/17001 VAC MOTOR ASSEMBLY | 28 |
| | | 27001 Vac Tank Assembly | |
| | 5.16 | 27001 Water Tank Assembly | 29 |
| | | 27501 Black Box Assembly | |
| | | 27001 HEPA Assembly | |
| | | 27001 Switch Plate Assembly | |
| | | 27001 Valve Assembly | |
| | | 27001 PUMP ASSEMBLY | |
| | 5.21 | 27001 Vac Motor Assembly | 32 |
| | | | |

1.1 PRODUCT IDENTIFICATION

Identify your system below to see the correct manual pages for your product.







1.2 SAFETY PRECAUTIONS: CORDED UNITS ONLY IMPORTANT SAFETY INSTRUCTIONS — SAVE THESE INSTRUCTIONS READ ALL INSTRUCTIONS BEFORE USING (THIS APPLIANCE)

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



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

- Turn off the unit before unplugging. Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
- Connect to a properly grounded outlet only. Do not remove ground pin. See Grounding Instructions below.
- DO NOT allow to be used as a toy. Close attention is necessary when used by or near children.
- Use only as described in this manual. Use only manufacturer's recommended attachments.
- Inspect cord prior to use. Do not use with damaged cord or plug. If appliance is not working as it should, has been
 dropped, damaged, left outdoors or dropped into water, return it to a service center.
- DO NOT handle plug or appliance with wet hands.
- DO NOT pull or carry by cord, use cord as handle, close a door on cord, or pull cord around sharp edges or corners. Do
 not run appliance over cord. Keep cord away from heated surfaces.
- DO NOT unplug by pulling on cord. To unplug, grasp the plug, not the 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.
- Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts. Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- DO NOT use to pick up flammable or combustible liquids such as gasoline, or use in areas where they may be present.
- DO NOT pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
- If using extension cord with appliance, make sure the connection is above the floor and away from exposure to liquid.
- Keep all connections dry and off the ground.
- To reduce the risk of injury, close supervision is necessary when a product is used near children.
- Stay alert watch what you are doing.
- Keep operating area clear of all persons.
- The Kaivac shall be disconnected from mains during cleaning or maintenance and when replacing parts or converting the machine to another function.
- DO NOT overreach or stand on unstable support. Keep good footing and balance at all times.
- DO NOT operate without the float installed. If float is removed, reinstall by screwing back into place.
- Keep the cord away from heated surfaces.
- DO NOT use without dust bag and/or filters in place.
- This product comes with a grounded attachable extension cord. If damaged, replace with equivalent cord. This cord must be attached and mechanically secured using the provided cord connector to use the equipment.
- DO NOT operate the product when fatigued or under the influence of alcohol or drugs.
- Know how to stop the product and bleed pressures quickly. Be thoroughly familiar with the controls.
- Follow the maintenance instructions specified in the manual.

SPRAY SYSTEM WARNINGS (ONLY):

- DO NOT spray liquid from the Kaivac onto electrical outlets or any electrical devices.
- Risk of injection or injury to persons DO NOT direct discharge stream at persons.
- INJECTION HAZARD: Equipment can cause serious 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 (3447 kPa). To avoid rupture and injury, do not operate this pump with components rated less than 500 PSI (3447 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.

1.2 SAFETY PRECAUTIONS: CORDED (CONTINUED)

- High pressure cleaners shall not be used by children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or untrained personnel. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- This product may also have been 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.
- 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 appliance.

GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (for spray systems only)

This machine was supplied 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.

This appliance is for use on a nominal circuit and has a grounding attachment plug. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance.

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 DOE and ordinances.

WARNING

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet have a proper outlet installed by a qualified electrician.

FOR INDOOR USE ONLY

INTENDED FOR COMMERCIAL USE



■ WARNING — To Reduce the Risk of Electric Shock — Do not expose to rain. Store indoors.

1.3 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.

1.3 WARRANTY REGISTRATION FORM

Form must 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: | Zip Code: |
| Phone Number: | FAX:_ | |
| Date Purchased:/W | /here Purchased: | |
| I would like to receive updated information | n via email Yes | No |
| Email Address: | | |
| OmniFlex | | No-Touch Cleaning |
| ☐ OmniFlex Trolley-Bucket | | □ KV1250 |
| ☐ OmniFlex Wet Vacuum | | □ KV1750 |
| ☐ UniVac | | □ KV17501 |
| ☐ OmniFlex Dispense-and-Vac | | □ KV2750 |
| ☐ AutoVac | | |
| ☐ AutoVac Battery | | |
| ☐ OmniFlex Spray-and-Vac | | |
| □ SUV | | |
| Serial Number (1): | | Serial Number (2): |
| Thank you fo | r registering for our v | varranty program. |

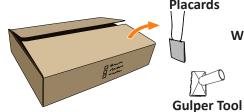
Please return completed forms to:

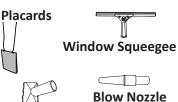
Kaivac, Inc. 2608 Van Hook Ave. Hamilton, OH 45015 Or Fax to: (513) 896-8548

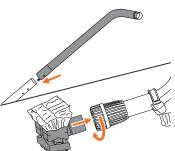


2.1 OUT OF BOX SETUP

Accessory Box: Open Box and remove contents. Listed below are placement instructions. Tote Bag can be removed and filled with remaining tools; set aside.



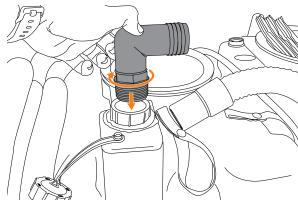




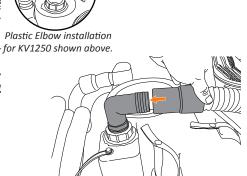
After removing Vac Wand from Accessory Box, assemble it by sliding the sections together until the Locking Pin engages, then insert the Brush Head and screw firmly as shown.



Place Placards around Push Handles of your Kaivac Machine.



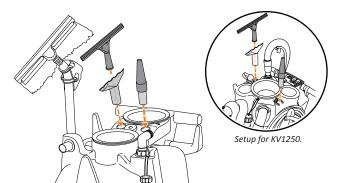
After removing the machine from the container, attach the Plastic Elbow to the Vacuum Tank as shown above.



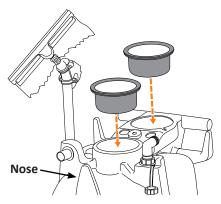
Attach Vacuum Motor Hose to Elbow.



Ensure dump hose is secured to the capand-tether.

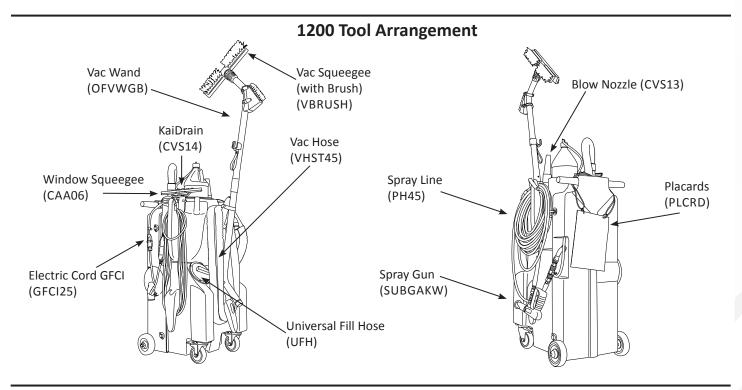


Remove Window Squeegee, KaiDrain and Blow Nozzle from Accessory Box, and place them in the appropriate locations as shown above.

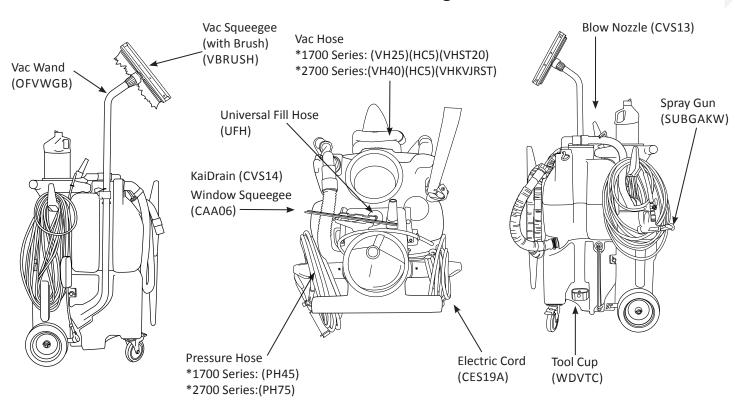


Make sure Vac Lid Jug Holders are firmly on Vacuum Tank, and place remaining tools into Tote Bag to hang on nose.

2.2 TOOL ARRANGEMENT



1700 and 2700 Tool Arrangement



2.3 Preparation For Use

| 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. Then select the proper metering tip. (See placard for metering tip information) | |
| 3. | Check machine for all tools and supplies needed to complete task. See <i>Tool Arrangement</i> in Section 2.2 of this manual. | |
| 4. | If using a cleaning product that foams, use a foam inhibitor to cut excess. Pour 2 capfuls of inhibitor in the Vac Hose with Vac running to coat inside of Hose. | BUBBLE 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 |

3.1 MACHINE MAINTENANCE

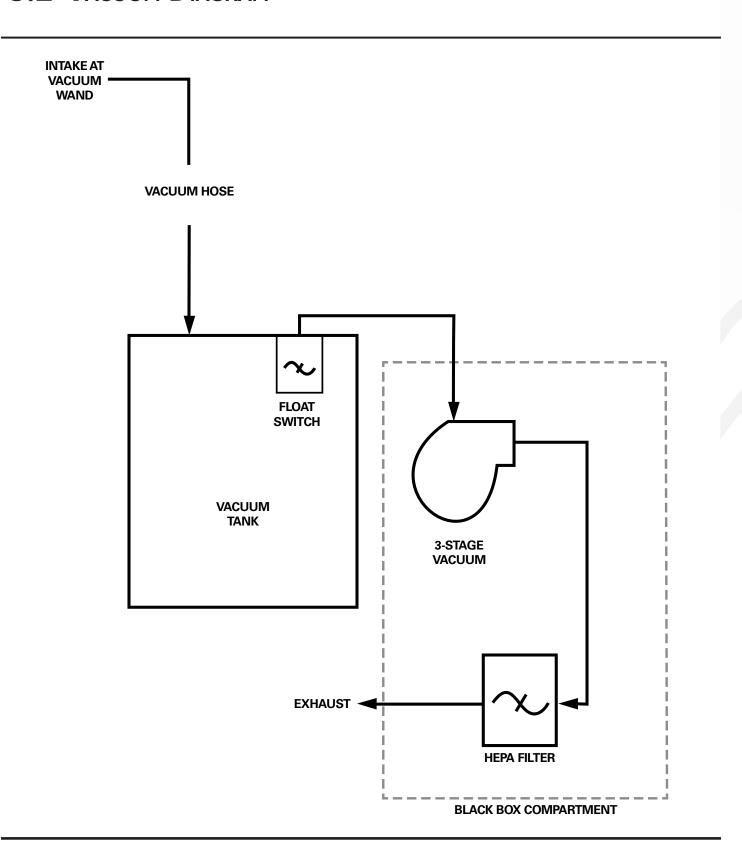
CAUTION: Always unplug machine before lifting electric cover assembly.

ITEM

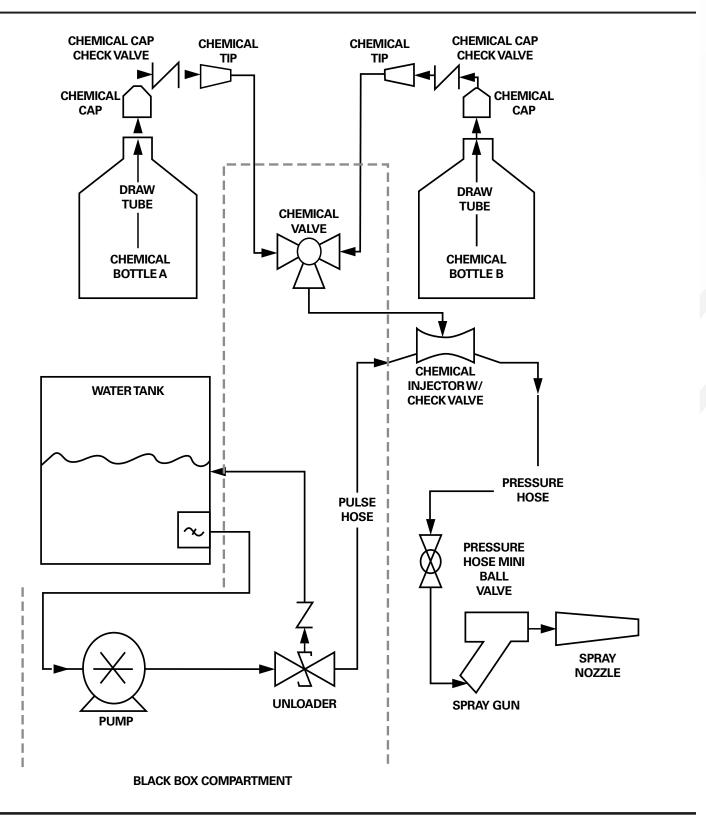
PROCEDURE

| Floor Squeegee | Check condition of squeegee blades and wheels on the floor tool. 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 Hose | Wipe clean after each use. Check for cuts or frays in the hose jacket, particularly at the end of the fittings. Replace hose if cuts are found. |
| Water Tank | Check condition of filter in water tank. Clean as needed. 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 blocked or dirty. 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. Electrical cord must be inspected for tears or cuts in the insulation. |
| Vacuum Wand | Use a wire or coarse brush with acid cleaner 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. |

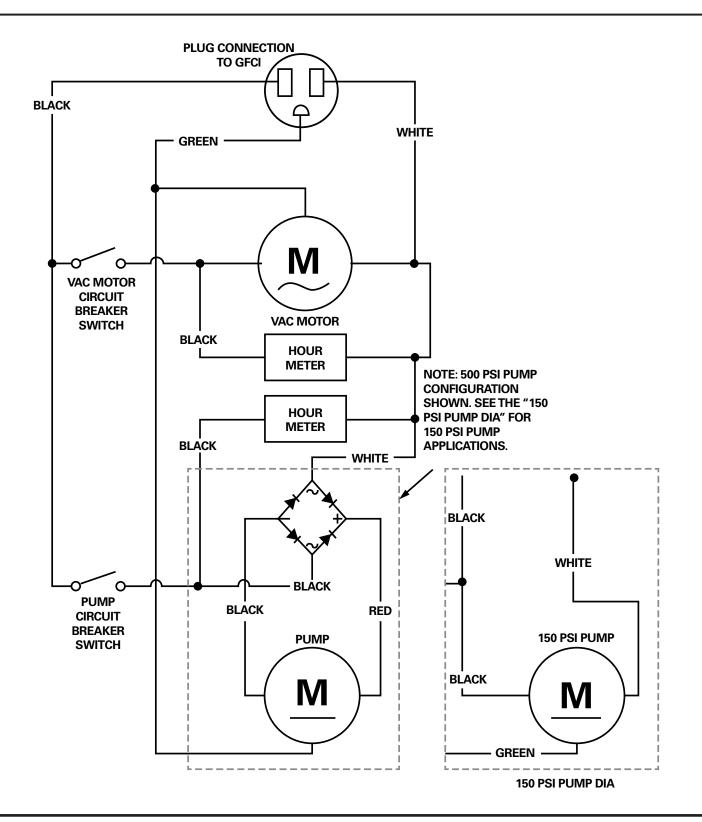
3.2 VACUUM DIAGRAM



3.3 PUMP DIAGRAM



3.4 ELECTRICAL DIAGRAM



4.1 TROUBLESHOOTING

CAUTION: Always unplug machine 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 Domesto sussesses | 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 |
| | No/Weak vacuum | Float shutoff screen dirty | Spray off float screen to clean |
| | | Float ball stuck | Tap float and release/clean |
| | | Damaged hose | Cut and repair/replace |
| | | Dump hose plug missing | Contact dealer and replace |
| | | Access lid not right | 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 |
| | | Vac tank full | Dump vac tank |
| | Moisture from exhaust | Float shutoff missing | Replace |
| | | Excessive foam in vac tank | Use defoamer |
| | No air flow | Hose disconnected | Reconnect hose |
| | Moisture from exhaust | Water in blow hose | Dry blow line |
| Blow Dry System | Suction, not blow action | Vacuum hose connected to vac tank | Reconnect to vac motor exhaust hose |

4.2 TROUBLESHOOTING

CAUTION: Always unplug machine before lifting electric cover assembly.

| AREA | PROBLEM | POSSIBLE CAUSE | SOLUTION |
|------------------------------|--|------------------------------|--|
| | | Out of water | Fill water tank |
| | | Gun nozzle plugged | Remove orifice with Allen wrench and clean |
| | | Air in pump (vapor lock) | Use power prime technique |
| | | Gun orifice missing | Replace orifice |
| | | Water tank filter plugged | Clean tank and filter |
| | No water from pump | In-line bowl filter plugged | Remove filter cover and clean |
| | or low pressure | Bowl filter lid loose | Gently tighten bowl cover |
| High Pressure | | Pressure hose damaged | Repair or replace |
| System | | Quick disconnect leaking | Tighten or replace |
| | | 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 replaced | Remove and replace seals |
| | Bad fan pattern or pinpoint pattern on | Debris in nozzle | Remove orifice with Allen wrench and clean |
| | 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 |
| | No chemical flow | Spray gun in wrong mode | Make sure gun nozzle is pulled out away from gun chemical mode |
| | | Metering tip plugged | Check metering tip for clog |
| Chemical Injection System | | 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; reinstall. |
| | | Kink in chemical line | Replace chemical line |

4.3 TROUBLESHOOTING

CAUTION: Always unplug machine before lifting electric cover assembly.

| AREA | PROBLEM POS | SSIBLE 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 | Dump hose leaks | Hose cut | If leak is less than 4" from tank side, cut and reattach, or replace |
| | | Clamp loose | Tighten hose clamp |
| | | Dump cap missing | Replace cap |
| | | Flat tires | Inflate tires to 30 p.s.i. |
| | | Debris wrapped around axle | Check for debris on axle |
| Wheels and Casters | Wheels will not roll; rubbing | Bearings tight | Grease bearings |
| | Tubbling | 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 does not easily rotate when | Brass ring on wand not in groove | Loosen coupling nut and re-position head on groove |
| | installed on wand | Coupling nut too tight | Loosen 1/2 turn |
| | Head will not stay on | Coupling nut cracked | Replace |
| Squeegee Head | wand | 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 |

4.4 TROUBLESHOOTING TIPS

POOR VACUUM PICKUP

- 1. Check Squeegee Blades. If blades are worn or damaged, replace Squeegee Head.
- 2. Clean float cage.
- 3. Check for leaks in the Vacuum Hose or Gasket.
- 4. Check for clogged Vacuum Hose.
- 5. Check to see if float ball was tripped.

VACUUM SHUTS OFF PREMATURELY

- 1. Check Float Cage; clean if dirty.
- 2. Cleaning Chemicals may be producing too much foam. Use correct Chemicals.

• OTHER ISSUES? CONTACT TECHNICAL SUPPORT

PHONE:

United States and Canada: 1-800-287-1136

International: 1-513-887-4600

EMAIL:

info@kaivac.com

For Technical Support Contact Form go to: https://www.kaivac.com/contactus.php and choose Technical Support tab.

4.5 REPLACEMENT (MONTHLY)

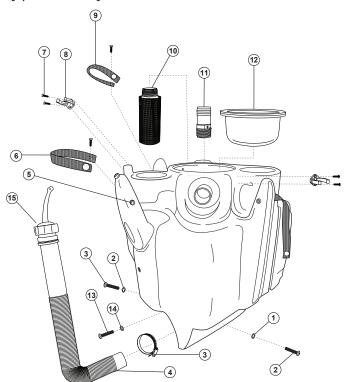
The following tasks should be performed monthly to keep your system operating at peak performance.



Check for worn squeegee blades. Worn blades cause streaking and loss of vacuum suction.

Unscrew cuff at end of Vac Wand, remove old head and replace with new every 6-8 weeks for optimal performance.

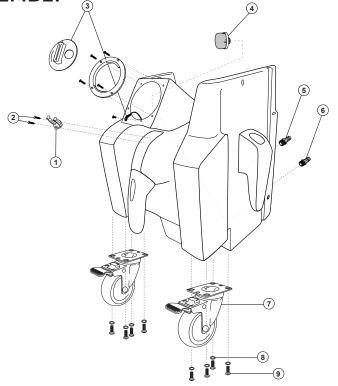
5.1 1200 VAC TANK ASSEMBLY [P/N: VTA1200]



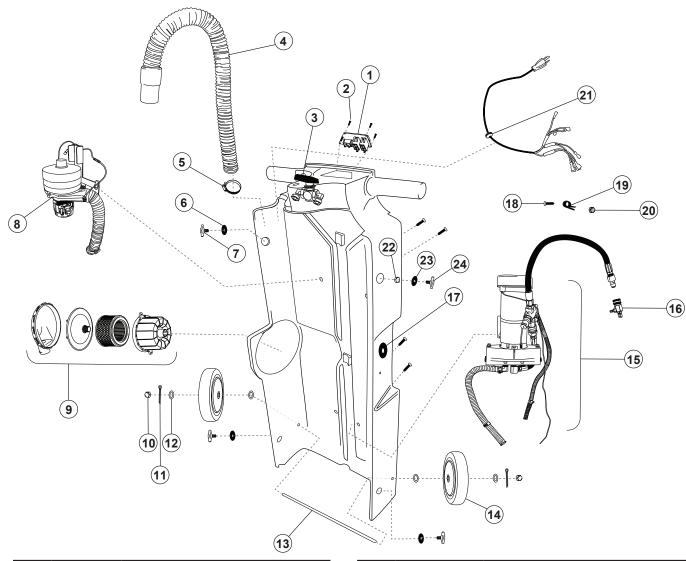
| # | PART NO. | PART DESCRIPTION |
|----|----------|--------------------------------|
| 1 | KMB16 | 3/8 SST FLAT WASHER |
| 2 | CSS91 | 3/8 X 2 1/4 BOLT |
| 3 | CSS03 | 1 9/16 - 2 1/2 HOSE CLAMP |
| 4 | DH25 | 26" X 1.5" DUMP HOSE 2" CUFF |
| 5 | CSS20 | SNAP STUD |
| 6 | SUBSS7 | 7 IN. SNAP AND STRAP |
| 7 | CSS17 | #8 FLAT HEAD SQUARE SCREW |
| 8 | CSS14 | 13 CLAMP, FOR TOOLS |
| 9 | SUBSS9 | 9 IN. SNAP AND STRAP |
| 10 | KZFLOAT | FLOAT SHUT OFF |
| 11 | CSS173 | 1 1/4 NPT X 1 1/2 HOSE ADAPTER |
| 12 | VLJHA | VAC LID, JUG HOLDER ASSEMBLY |
| 13 | CSS58 | 3/8 X 16 X 1 SST SCREW |
| 14 | CSS48 | 3/8 SST LARGE OD WASHER |
| 15 | SCCAP | DUMP HOSE CAP |

5.2 1200 WATER TANK ASSEMBLY [P/N: WTA1200]

| # | PART NO. | PART DESCRIPTION |
|---|----------|-------------------------------|
| 1 | CSS14 | 13 CLAMP, FOR TOOLS |
| 2 | CSS17 | #8 FLAT HEAD SQUARE SCREW |
| 3 | LID4 | LID WITH TETHER 4 1/4 IN |
| 4 | MFILT | MUSHROOM FILTER |
| 5 | CSS142 | 3/8 IN BRASS HOSE BARB |
| 6 | CPS20 | 3/8 NPT X 1/2 BRASS HOSE BARB |
| 7 | LCST4 | 4 TOTAL LOCK CASTER |
| 8 | CSS133 | 5/16 SPLIT LOCK WASHER 300 SS |
| 9 | CSS132 | 5/16-18X1 BUTTON HEAD |



5.3 1250 BLACK BOX ASSEMBLY [P/N: BBA1250240V (AUS, EU, UK)]

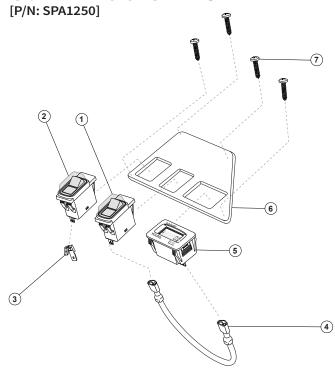


| # | PART NO. | PART DESCRIPTION |
|----|-------------|----------------------------------|
| 1 | SPA1250 | SWITCH PANEL ASSEMBLY FOR KV1250 |
| 2 | CSS17A | 8 SST SCREW 3/4 |
| 3 | VA2W | VALVE ASSEMBLY 2 WAY FOR KV1250 |
| 4 | VMH27 | VAC MOTOR HOSE NEW |
| 5 | CSS03 | 1 9/16 - 2 1/2 HOSE CLAMP |
| 6* | CSS48 | 3/8 SST LARGE OD WASHER |
| 7* | CSS156 | 3/8 X 3/4 T THUMB SCREW YELLOW |
| 8A | VMA1200 | VAC MOTOR ASY KV1200 |
| 8B | VMA1250240V | VAC MOTOR ASY KV1250 |
| 9 | HEPAHA2 | HEPA HOUSING ASSEMBLY |
| 10 | CSS01 | 1/2 IN PUSH CAP NUT |
| 11 | CSS72 | COTTER PIN 1/8 DIA X 11/4 LG |
| 12 | CSS40 | 1/2 DIA WASHERS |

| 13 | AX195 | AXLE 19.75 X 1/2 CR STEEL |
|-----|---------------------|--------------------------------|
| 14 | WHL5 | 5 X 1 1/2 TPU WHEEL W-1/2 BB |
| 15A | PA1250 | PUMP ASSEMBLY FOR KV1200 |
| 15B | PA1250240V-2 | PUMP ASSEMBLY FOR KV1250 |
| 16 | CPS12JQC | QUICK CONNECT INJECTOR |
| 17 | CSS175 | 3/4 ID X 1 3/8 OD GROMMET |
| 18 | CSS174 | 1/4-20 X 5/8 MACHINE SCREW SS |
| 19 | CSS130 | RUBBER CUSHIONED STEEL LOOP |
| 20 | CSS101 | ACORN NUT 1/4 20 |
| 21A | PCKV1A | POWER CORD MOLDED WITH GROMMET |
| 21B | CES20 (AUS, EU, UK) | POWER CORD MOLDED WITH GROMMET |
| 22 | CSS54 | 3/8 HEX NUT |
| 23 | CSS48 | 3/8 SST LARGE OD WASHER |
| 24 | CSS308 | 1200 BLACK BOX HOSE HOOK |
| | | |

^{*} Shown but not part of assembly

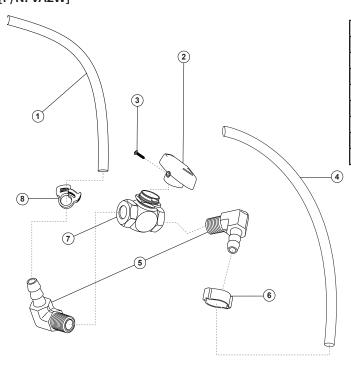
5.4 1200 SWITCH PANEL ASSEMBLY [P/N: SPA1250]



| # | PART NO. | PART DESCRIPTION |
|----|--------------|-------------------------------------|
| 1 | 5ACBS (PUMP) | 5 AMP CIRCUIT BREAKER SWITCH BLACK |
| 2 | 15ACBS (VAC) | 15 AMP CIRCUIT BREAKER SWITCH WHITE |
| 3 | CSS123 | QUICK CONNECT PIGGY BACK TERM |
| 4 | JWB5 | JUMPER WIRE BLACK 5 IN |
| 5 | HMETER | SNAP IN DIGITAL METER |
| 6 | SPLSSB1200 | SWITCH PLATE SS W/ BREAKER |
| 7* | CSS17A | 8 SST SCREW 3/4 |

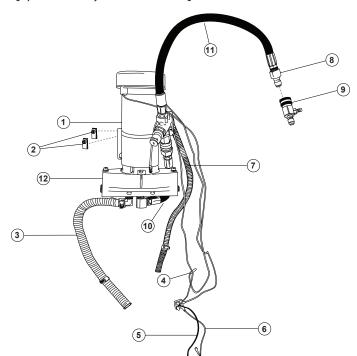
^{*} Shown but not part of assembly

5.5 1200 VALVE ASSEMBLY [P/N: VA2W]



| # | PART NO. | PART DESCRIPTION |
|---|----------|---|
| 1 | SPH18 | 2 WAY VALVE HOSE FOR KV1250 |
| 2 | CPS50B | BLACK KNOB FOR 3 WAY VALVE |
| 3 | CPS50C | SET SCREW FOR 3 WAY VALVE |
| 4 | SPH24 | ELECT BOX CHEMICAL HOSE 24 IN |
| 5 | CPS68 | 90 DEG 1/8 NPT MALE X |
| 6 | CPS65 | 1/2 IN CLAMP |
| 7 | CPS43A | 2 WAY BRASS VALVE VITON SEALS (INCLUDES KNOB) |
| 8 | CSS21F | SNAP GRID HOSE CLAMP SIZE C |

5.6 1250 PUMP ASSEMBLY [P/N: PA1250, PA1250240V-2]

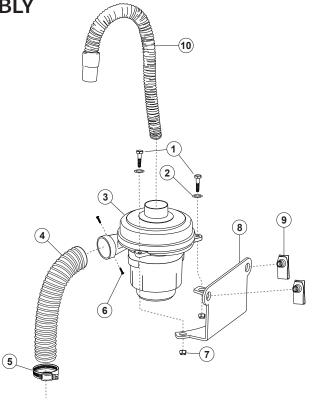


| # | PART NO. | PART DESCRIPTION |
|----|--------------|---------------------------|
| 1 | PMA217 | MOTOR ONLY |
| 2 | CSS08 | 5/16-18 U-NUT |
| 3 | WL1750 | WATER LINE FOR 1750 |
| 4 | CSS127 | QUICK DISCONNECT TERMINAL |
| 5 | JWB | JUMPER WIRE BLACK 12 IN |
| 6 | JWW | JUMPER WIRE WHITE 12 IN |
| 7 | RL1750 | RETURN LINE FOR 1750 |
| 8 | CPS38 | 3/8 QD PLUG |
| 9* | CPS12JQC | QUICK CONNECT INJECTOR |
| 10 | CPS14B | PULSE HOSE SHORT |
| 11 | CPS14 | PULSE HOSE LONG |
| 12 | PUMPSPARE217 | PUMP ONLY |

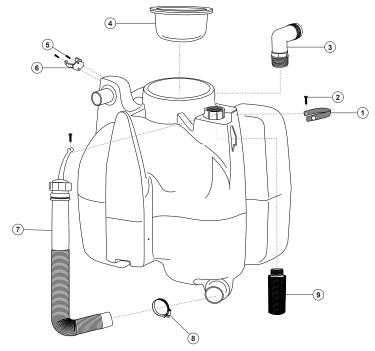
^{*} Shown but not part of assembly

5.7 1200 VAC **MOTOR ASSEMBLY** [P/N: VMA1200, VMA1250240V]

| | 1 | |
|----|----------|--------------------------|
| # | PART NO. | PART DESCRIPTION |
| 1 | CSS203 | HEX BOLT 1/4 20 X 1 1/4 |
| 2 | CSS44 | 1/4 FLAT WASHER |
| 3A | CVM1R | MOTOR FOR BUILDS |
| 3B | CVM240V | 3 STAGE VAC MOTOR 240V |
| 4 | HFH16 | HEPA FILTER HOSE 16 IN |
| 5 | CSS39 | 1 1/16-2 HOSE CLAMP |
| 6 | CSS11 | NO 10 3/4 SELF DRILLING |
| 7 | CSS27 | 1/4 NYLOC NUT |
| 8 | VBRAK | VAC MOTOR BRACKET KV1200 |
| 9 | CSS08 | 5/16-18 U NUT |
| 10 | VMH27 | VAC MOTOR HOSE |

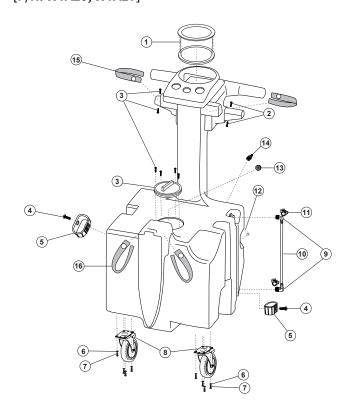


5.8 1700/17001 VAC TANK ASSEMBLY [P/N: VTA18, VTA17]



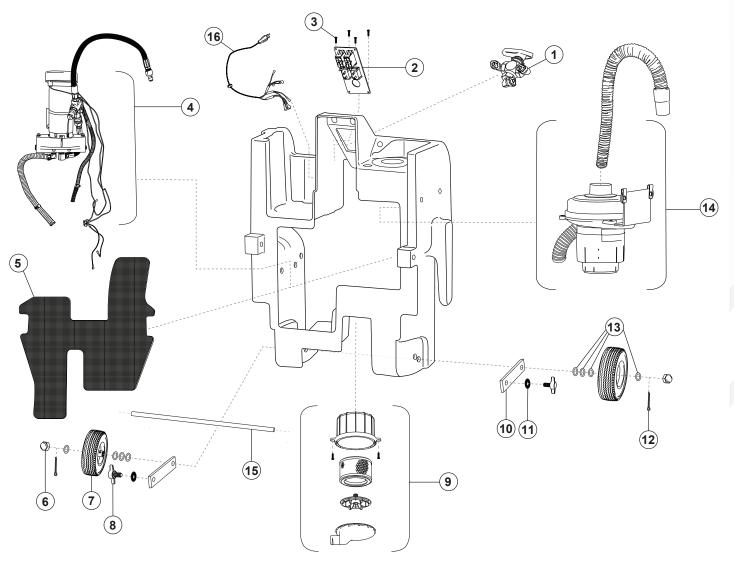
| # | PART NO. | PART DESCRIPTION |
|---|----------|------------------------------|
| 1 | SUBSS11 | 11 IN SNAP AND STRAP |
| 2 | CSS20 | SNAP STUD |
| 3 | CSS144 | 1 1/4 NPT X 1 1/2 HOSE BARB |
| 4 | VLJHA | VAC LID, JUG HOLDER ASSEMBLY |
| 5 | CSS17 | #8 FLAT HEAD SQUARE SCREW |
| 6 | CSS14 | 13 CLAMP, FOR TOOLS |
| 7 | DH25 | 26" X 1.5" DUMP HOSE 2" CUFF |
| 8 | CSS03 | 1 9/16 - 2 1/2 HOSE CLAMP |
| 9 | KZFLOAT | FLOAT SHUT OFF |

5.9 1700/17001 WATER **T**ANK **A**SSEMBLY [P/N: WTA20, WTA17]



| # | PART NO. | PART DESCRIPTION |
|-----|----------|---------------------------------|
| 1 | VLJHA | VAC LID, JUG HOLDER ASSEMBLY |
| 2 | CSS17A | 8 SST SCREW 3/4 |
| 3 | LID4 | LID WITH TETHER 4 1/2 IN |
| 4 | CSS88 | 1/4 20 X 3/4 SST SCREW |
| 5 | WDVTC | TOOL CUP |
| 6 | CSS133 | 5/16 SPLIT LOCK WASHER 300 SS |
| 7 | CSS132 | 5/16-18X1 BUTTON HEAD |
| 8 | CFS03 | 5 IN CASTER, MOUNTING PLATE |
| 9A | CSS158 | 90 DEG BRASS 3/8 NPT X 1/2 HOSE |
| 9B | CSS143 | 3/8 IN 90 DEG BRASS BARB |
| 10A | ST16 | SIGHT TUBE 16 IN 1/2 ID |
| 10B | ST14 | SIGHT TUBE 13 1/2 IN ID |
| 11A | CSS114 | NYLON SNAP GRIP CLAMP SIZE F |
| 11B | CSS21 | SNAP GRIP HOSE CLAMP SIZE D |
| 12 | CSS158 | 90 DEG BRASS 3/8 NPT X 1/2 HOSE |
| 13 | MFILT | MUSHROOM FILTER |
| 14 | CSS142 | 3/8 IN BRASS HOSE BARB |
| 15 | SUBSS4 | 4 IN SNAP AND STRAP |
| 16 | SUBSS6 | 6 IN SNAP AND STRAP |

5.10 1750/17501 BLACK BOX ASSEMBLY [P/N: BBA1750R, BBA217E, BBA1750240V (AUS, EU, UK), BBA17501R, BBA17501E, BBA17501240V (AUS, EU, UK)]

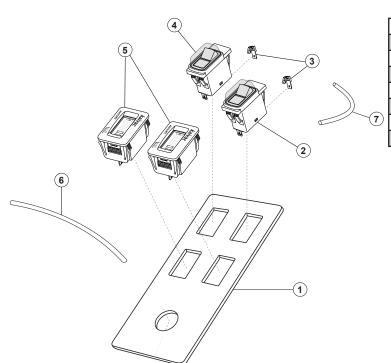


| # | PART NO. | PART DESCRIPTION |
|----|--------------|---------------------------------------|
| 1 | VA3W | VALVE ASSEMBLY 3 WAY |
| 2A | SPADC | SWITCH PANEL ASSEMBLY |
| 2B | SPADCE | SWITCH PANEL ASSEMBLY FOR ETL |
| 3 | CSS17A | #8 SST SCREW 3/4 |
| 4A | PA217 | PUMP ASSEMBLY COMPLETE KV1750 |
| 4B | PA217E | PUMP ASSEMBLY COMPLETE FOR KV1750 ETL |
| 4C | PA1750240V-2 | PUMP ASSEMBLY COMPLETE KV1750 |
| 5A | SPLATE17 | SPLASH PLATE FOR 1700 |
| 5B | SPLATE17B | SPLASH PLATE 17001 - 27501 |
| 6 | CSS01 | 1/2 IN PUSH CAP NUT |
| 7 | WHEEL8B | FLAT FREE TIRE 8 IN 1/2 HUB |
| 8* | CSS156 | 3/8 X 3/4 T THUMB SCREW YELLOW |

| 8^ | CSS156 | 3/8 |
|---------|-----------------|----------|
| * Shown | but not part of | assembly |

| 9 | HEPAHA2 | HEPA HOUSING ASSEMBLY |
|-----|---------------------|---|
| 10 | AXSTRAP | AXLE STRAP |
| 11* | KMB16 | 3/8 SST FLAT WASHER |
| 12 | CSS72 | COTTER PIN 1/8 DIA X 11/4 LG |
| 13 | CSS40 | 1/2 DIA WASHERS |
| 14A | VMA1700R | HE 120V VMA 1700 |
| 14B | VMA1700E | HE 120V VMA 1700 ETL |
| 14C | VMASM240V | 1750 VAC MOTOR ASSEMBLY 240V |
| 15 | AX205 | AXLE 20.5 IN X 1/2 DIA 303 SST |
| 16A | PCKV1A | POWER CORD MOLDED W/ GROMMET |
| 16B | PCKV1TA | POWER CORD MOLDED W/ GROMMET & TWIST LOCK |
| 16C | CES20 (AUS, EU, UK) | 50' PRONG CORD WITH RCD |

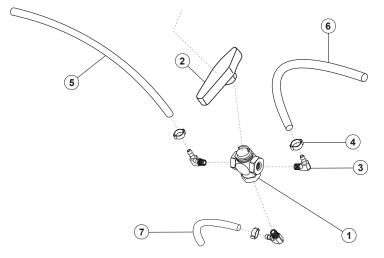
5.11 1700/17001 SWITCH PLATE ASSEMBLY [P/N: SPADC, SPADCE]



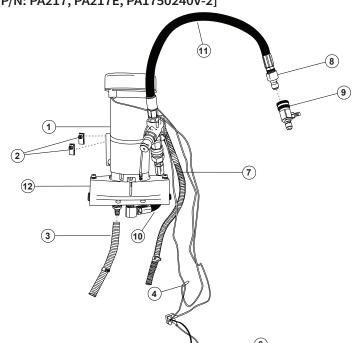
| # | PART NO. | PART DESCRIPTION |
|---|----------|--|
| 1 | SPDCSSB | SWITCH PNL DUALCHEM FOR BREAKER SWITCH |
| 2 | 5ACBS | 5 AMP PUMP CIRCUIT BREAKER SWITCH |
| 3 | CSS123 | QUICK CONNECT PIGGY BACK TERM |
| 4 | 15ACBS | 15 AMP VAC CIRCUIT BREAKER SWITCH WHT |
| 5 | HMETER | SNAP IN DIGITAL HOUR METER |
| 6 | JWW | JUMPER WIRE WHITE 12 IN |
| 7 | JWB5 | JUMPER WIRE BLACK 5 IN |

5.12 1700/17001 VALVE **A**SSEMBLY

| # | PART NO. | PART DESCRIPTION |
|---|----------|--|
| 1 | CPS50A | 3 WAY BRASS VALVE WITH VITON SEAL(INCLUDES KNOB) |
| 2 | CPS50B | BLACK KNOB 3 WAY VALVE |
| 3 | CPS68 | 90 DEG 1/8 NPT M X 1/4 BARB |
| 4 | CPS65 | 1/2 IN CLAMP |
| 5 | SPH34 | SWITCH PANEL HOSE 34 IN |
| 6 | SPH18 | SWITCH PANEL HOSE 18 IN |
| 7 | SPH9 | SWITCH PANEL HOSE 9 IN |



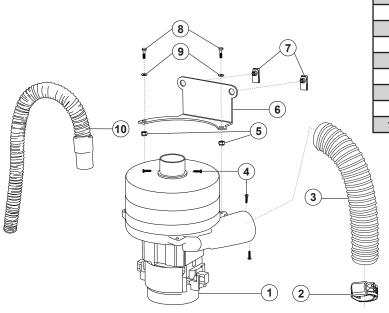
5.13 1750/17501 PUMP ASSEMBLY [P/N: PA217, PA217E, PA1750240V-2]



| # | PART NO. | PART DESCRIPTION |
|----|--------------|---------------------------|
| 1 | PMA217 | MOTOR ONLY |
| 2 | CSS08 | 5/16-18 U-NUT |
| 3 | WL1750 | WATER LINE FOR 1750 |
| 4 | CSS127 | QUICK DISCONNECT TERMINAL |
| 5 | JWB | JUMPER WIRE BLACK 12 IN |
| 6 | JWW | JUMPER WIRE WHITE 12 IN |
| 7 | RL1750 | RETURN LINE FOR 1750 |
| 8 | CPS38 | 3/8 QD PLUG |
| 9* | CPS12JQC | QUICK CONNECT INJECTOR |
| 10 | CPS14B | PULSE HOSE SHORT |
| 11 | CPS14 | PULSE HOSE LONG |
| 12 | PUMPSPARE217 | PUMP ONLY |

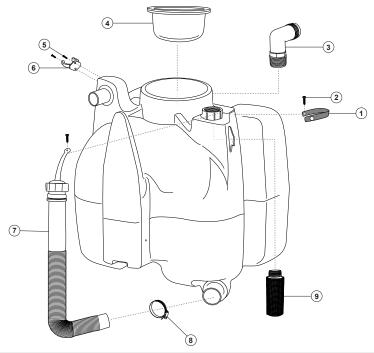
^{*} Shown but not part of assembly

5.14 1700/17001 Vac Motor Assembly [P/N: VMA1700R, VMA1700E, VMASM240V]



| # | PART NO. | PART DESCRIPTION |
|----|-----------|--------------------------------|
| 1A | HEVM1 | HIGH EFFICIENCY 120V VAC MOTOR |
| 1B | HEVM1240V | HIGH EFFICIENCY VAC MOTOR 240V |
| 2 | CSS39 | 1 1/16 - 2 HOSE CLAMP |
| 3 | VEH19 | VAC MOTOR EXHAUST HOSE 19 IN |
| 4 | CSS11 | NO 10 X 3/4 SELF DRILLING |
| 5 | CSS27 | 1/4 NYLOC NUT |
| 6 | VBRAK4 | VAC MOTOR BRKT KV1700 |
| 7 | CSS08 | 5/16-18 U-NUT |
| 8 | CSS203 | HEX HEAD BOLT 1/4 20 X 1 1/4 |
| 9 | CSS44 | 1/4 FLAT WASHER |
| 10 | VMH27A | VAC MOTOR HOSE SHORT CUFF |

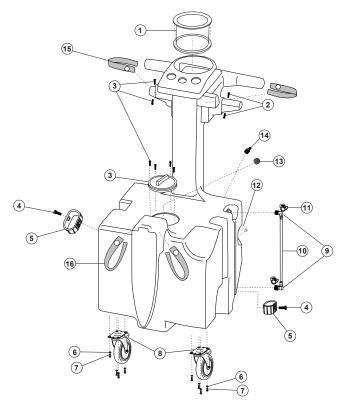
5.15 27001 VAC **T**ANK **A**SSEMBLY



| # | PART NO. | PART DESCRIPTION |
|---|----------|------------------------------|
| 1 | SUBSS11 | 11 IN SNAP AND STRAP |
| 2 | CSS20 | SNAP STUD |
| 3 | CSS144 | 1 1/4 NPT X 1 1/2 HOSE BARB |
| 4 | VLJHA | VAC LID, JUG HOLDER ASSEMBLY |
| 5 | CSS14 | 13 CLAMP, FOR TOOLS |
| 6 | CSS17 | #8 FLAT HEAD SQUARE SCREW |
| 7 | DH25 | 26" X 1.5" DUMP HOSE 2" CUFF |
| 8 | CSS03 | 1 9/16 - 2 1/2 HOSE CLAMP |
| 9 | KZFLOAT | FLOAT SHUT OFF |

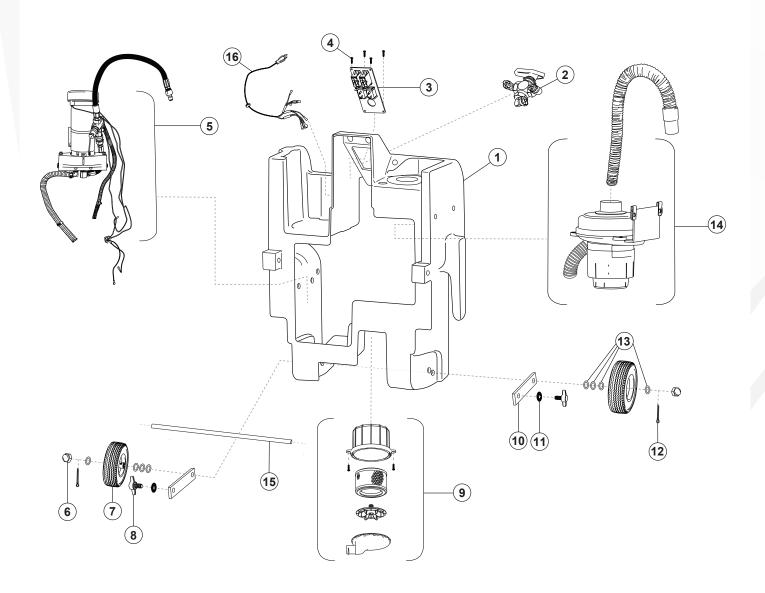
5.16 27001 WATER TANK ASSEMBLY

[P/N: WTA27]



| # | PART NO. | PART DESCRIPTION |
|----|----------|---------------------------------|
| 1 | VLJHA | VAC LID, JUG HOLDER ASSEMBLY |
| 2 | CSS17A | 8 SST SCREW 3/4 |
| 3 | LID4 | LID WITH TETHER 4 1/2 IN |
| 4 | CSS88 | 1/4 20 X 3/4 SST SCREW |
| 5 | WDVTC | TOOL CUP |
| 6 | CSS133 | 5/16 SPLIT LOCK WASHER 300 SS |
| 7 | CSS132 | 5/16-18X1 BUTTON HEAD |
| 8 | CFS04 | 6 IN CASTER, MOUNTING PLATE |
| 9 | CSS143 | 3/8 IN 90 DEG BRASS HOSE BARB |
| 10 | ST16B | SIGHT TUBE 16.25 IN 3/8 ID |
| 11 | CSS21 | SNAP GRIP HOSE CLAMP SIZE D |
| 12 | CSS158 | 90 DEG BRASS 3/8 NPT X 1/2 HOSE |
| 13 | MFILT | MUSHROOM FILTER |
| 14 | CSS142 | 3/8 IN BRASS HOSE BARB |
| 15 | SUBSS4 | 4 IN SNAP AND STRAP |
| 16 | SUBSS7 | 7 IN SNAP AND STRAP |

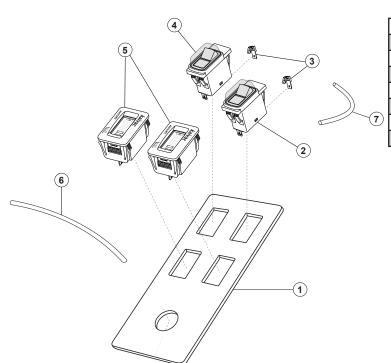
5.17 27501 BLACK BOX ASSEMBLY [P/N: BBA27501R, BBA27501240V (AUS, EU, UK)]



| # | PART NO. | PART DESCRIPTION |
|----|--------------|--------------------------------|
| 1 | BBNTC | BLACK BOX NTC |
| 2 | VA3W27 | VALVE ASSEMBLY 3 WAY |
| 3 | SPADC | SWITCH PANEL ASSEMBLY |
| 4 | CSS17A | #8 SST SCREW 3/4 |
| 5A | PA217 | PUMP ASSEMBLY COMPLETE KV1750 |
| 5B | PA1750240V-2 | PUMP ASSEMBLY COMPLETE KV1750 |
| 6 | CSS43 | 5/8 PUSH CAP NUT |
| 7 | WHEEL10 | FLAT FREE TIRE 10 IN 5/8 HUB |
| 8 | CSS156 | 3/8 X 3/4 T THUMB SCREW YELLOW |

| 9 | HEPAHA2 | HEPA HOUSING ASSEMBLY |
|-----|---------------------|------------------------------|
| 10 | AXSTRAP | AXLE STRAP |
| 11 | KMB16 | 3/8 SST FLAT WASHER |
| 12 | CSS72 | COTTER PIN 1/8 DIA X 11/4 LG |
| 13 | CSS46 | 5/8 STEEL WASHER |
| 14A | VMA27001 | HE 120V VMA 27001 |
| 14B | VMA27001240V | HE 240V VMA 27001 |
| 15 | AX21 | AXLE 21 IN X 5/8 DIA |
| 16A | PCKV1A | POWER CORD MOLDED W/ GROMMET |
| 16B | CES20 (AUS, EU, UK) | 50' CORD WITH RCD |

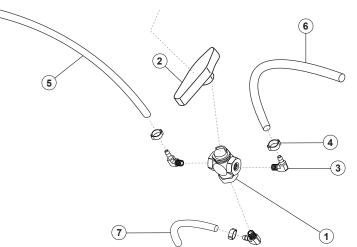
5.18 27001 SWITCH PLATE ASSEMBLY [P/N: SPADC]



| # | PART NO. | PART DESCRIPTION |
|---|----------|--|
| 1 | SPDCSSB | SWITCH PNL DUALCHEM FOR BREAKER SWITCH |
| 2 | 5ACBS | 5 AMP PUMP CIRCUIT BREAKER SWITCH |
| 3 | CSS123 | QUICK CONNECT PIGGY BACK TERM |
| 4 | 15ACBS | 15 AMP VAC CIRCUIT BREAKER SWITCH WHT |
| 5 | HMETER | SNAP IN DIGITAL HOUR METER |
| 6 | JWW | JUMPER WIRE WHITE 12 IN |
| 7 | JWB5 | JUMPER WIRE BLACK 5 IN |

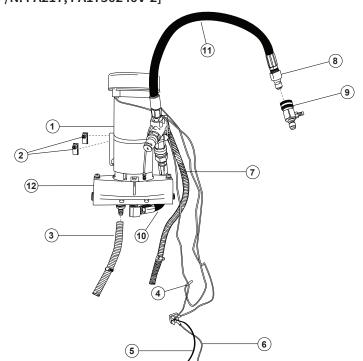
5.19 27001 VALVE **A**SSEMBLY [P/N: VA3W25]

| # | PART NO. | PART DESCRIPTION |
|---|----------|--|
| 1 | CPS50A | 3 WAY BRASS VALVE WITH VITON SEAL(INCLUDES KNOB) |
| 2 | CPS50B | BLACK KNOB 3 WAY VALVE |
| 3 | CPS68 | 90 DEG 1/8 NPT M X 1/4 BARB |
| 4 | CPS65 | 1/2 IN CLAMP |
| 5 | SPH43 | SWITCH PANEL HOSE 43 IN |
| 6 | SPH18 | SWITCH PANEL HOSE 18 IN |
| 7 | SPH9 | SWITCH PANEL HOSE 9 IN |



5.20 27501 PUMP **A**SSEMBLY

[P/N: PA217, PA1750240V-2]

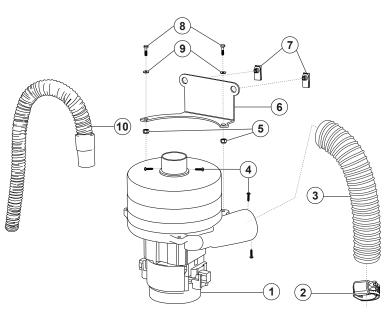


| # | PART NO. | PART DESCRIPTION |
|----|---------------|---------------------------|
| 1A | PA217 | PUMP ASSEMBLY |
| 1B | PUMP217240VDC | PUMP SERIES 217240VDC |
| 1C | PMA217 | MOTOR ONLY |
| 2 | CSS08 | 5/16-18 U-NUT |
| 3 | WL1750 | WATER LINE FOR 1750 |
| 4 | CSS127 | QUICK DISCONNECT TERMINAL |
| 5 | JWB | JUMPER WIRE BLACK 12 IN |
| 6 | JWW | JUMPER WIRE WHITE 12 IN |
| 7 | RL1750 | RETURN LINE FOR 1750 |
| 8 | CPS38 | 3/8 QD PLUG |
| 9* | CPS12JQC | QUICK CONNECT INJECTOR |
| 10 | CPS14B | PULSE HOSE SHORT |
| 11 | CPS14 | PULSE HOSE LONG |
| 12 | PUMPSPARE217 | PUMP ONLY |

^{*} Shown but not part of assembly

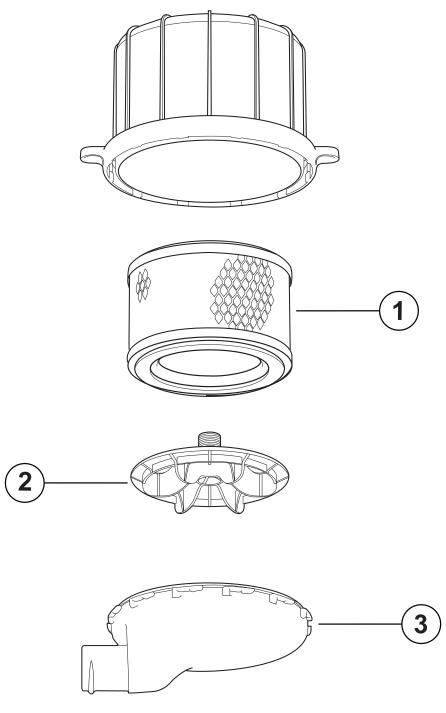
5.21 27001 VAC MOTOR ASSEMBLY

[P/N: VMA27001, VMA27001240V]



| # | PART NO. | PART DESCRIPTION |
|----|-----------|---------------------------------|
| 1A | HEVM1 | HIGH EFFICIENCY 120V VAC MOTOR |
| 1B | HEVM1240V | HIGH EFFICIENCY VAC MOTOR 240V |
| 2 | CSS39 | 1 1/16 - 2 HOSE CLAMP |
| 3 | VEH19 | VAC MOTOR EXHAUST HOSE 19 IN |
| 4 | CSS11 | NO 10 X 3/4 SELF DRILLING |
| 5 | CSS27 | 1/4 NYLOC NUT |
| 6 | VBRAK4 | VAC MOTOR BRKT KV1700 |
| 7 | CSS08 | 5/16-18 U-NUT |
| 8 | CSS203 | HEX HEAD BOLT 1/4 20 X 1 1/4 |
| 9 | CSS44 | 1/4 FLAT WASHER |
| 10 | VMH34A | VAC MOTOR HOSE SHORT CUFF 34 IN |

5.22 HEPA ASSEMBLY [P/N: HEPAHA2]



| # | PART NO. | PART DESCRIPTION |
|---|----------|--------------------|
| 1 | HEPA | HEPA FILTER |
| 2 | FKEEP2 | HEPA FILTER KEEPER |
| 3 | HCOVER | HEPA COVER |

