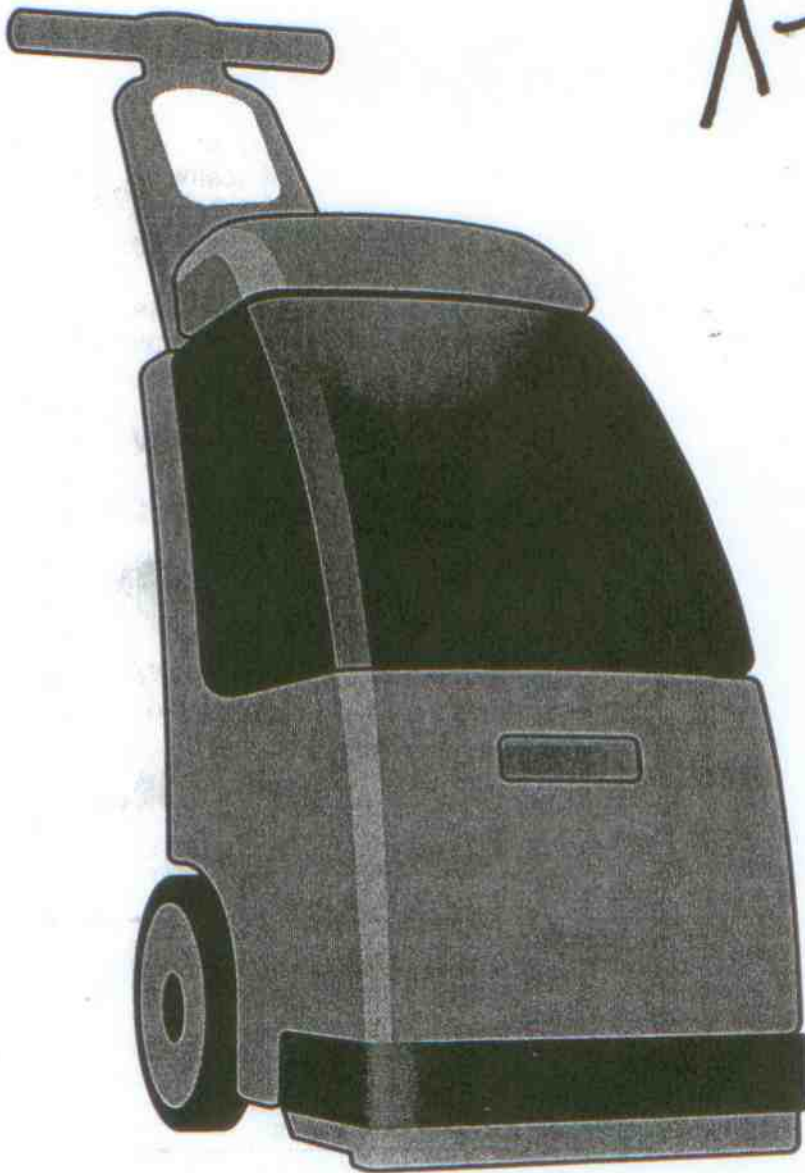




MAINTENANCE MANUAL

X-48



**Model: C4
Carpet
Cleaning
Machine**

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INTRODUCTION

BEFORE YOU USE YOUR OWNER'S MANUAL, PLEASE READ THIS INTRODUCTION ALL THE WAY THROUGH.

WHEN THE MACHINE IS DELIVERED:

Check the carton carefully for signs of damage and rough handling. Remove the machine from the carton. If the machine is damaged, notify the carrier immediately and request an inspection. Be sure to keep the carton, packing lists and carrier's receipt until the inspector has verified your claim.

Kent Investment's liability ceases when the shipment is picked up by the carrier, but our customer service staff will be glad to furnish any information needed in connection with the claim and will expedite repair of the machine.

BEFORE OPERATING THE MACHINE:

Read the manual carefully before operating Model C-4. The manual has important information for the use and safe operation of the machine. Keep this manual handy at all times. Model C-4 will assure years of satisfactory service if operated and maintained according to recommendations in this manual. If additional technical information is needed, please contact Kent Investment Corporation at (870)994-3535.

All information and specifications printed in this manual and parts list are current at the time of printing; however, because of Kent Investment's policy of continual product improvement, we reserve the right to make changes at any time without notice.

WARRANTY: See page 5 of this manual for limited warranty.

THIS MACHINE IS FOR COMMERCIAL USE.

IMPORTANT SAFETY INSTRUCTIONS

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

READ ALL INSTRUCTIONS BEFORE USING MODEL C-4.

GENERAL INSTRUCTIONS

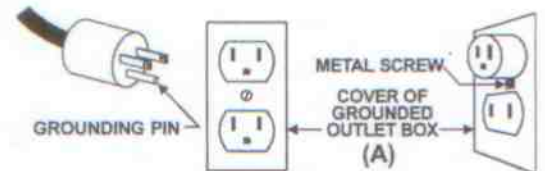
This floor-finishing machine shall be grounded while in use to protect the operator from electric shock. The machine is provided with a three-conductor cord and a three-contact grounding type attachment plug to fit the proper grounding type receptacle. The green and yellow conductor in the cord is the grounding wire. NEVER connect this wire to other than the grounding pin of the attachment plug.

WARNING – TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK, PERSONAL INJURY OR DAMAGE TO MODEL C-4:

1. DO NOT leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
2. To reduce the risk of electrical shock – DO NOT expose to rain. Store indoors.
3. This machine is intended for carpet and upholstery cleaning only!
4. Fill tank with machine bucket only! Machine must be emptied after 3 ½ gallons of water and solution have been used.
5. DO NOT allow to be used as a toy. Close attention is necessary when used by or near children.
6. Use only as described in this manual. Use only Kent Investment recommended attachments and chemicals.
7. DO NOT use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or immersed in water, contact Kent Investment Corporation service department for service instruction.
8. DO NOT pull or carry by cord, use cord as a handle, close door on a cord, or pull cord around sharp edges or corners. DO NOT run equipment over cord. Keep cord away from heated surfaces.
9. DO NOT unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. DO NOT handle plug or equipment with wet hands.
11. DO NOT put any object into openings. DO NOT use with any openings blocked; keep free of dust, lint, hair and anything that may reduce airflow.
12. Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
13. DO NOT pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
14. DO NOT use without filter screens in place.
15. Turn off all controls before unplugging.
16. Use extra care when cleaning stairs.
17. NEVER vacuum solvents, gasoline or other hazardous liquid or solid material or use in areas where they may be present.
18. Connect to a properly grounded outlet only. See grounding instructions.

GROUNDING INSTRUCTIONS

This machine is for use on a nominal 120-volt circuit and has a grounding plug that resembles the plug illustrated in sketch (A) (RIGHT). Make sure that the machine is connected to an outlet having the same configuration as the plug. No adapter should be used with this machine.



FOR CUSTOMERS IN CANADA:

CAUTION! To prevent electrical shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

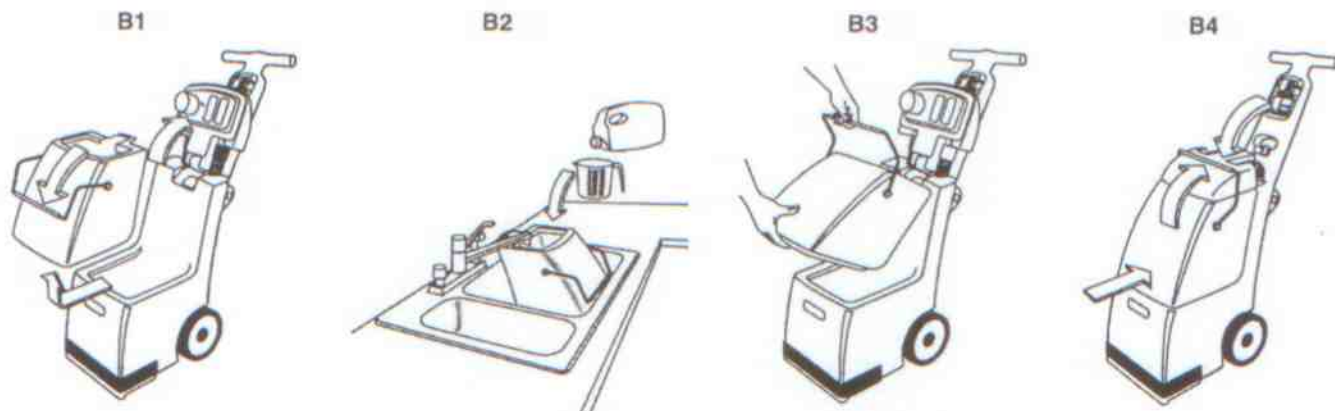
CARPET CLEANING INSTRUCTIONS

SECTION A: PREPARING CARPET

1. Vacuum carpet with your vacuum cleaner, **NOT** the C-4 extractor. 2. Pre-treat spotted and heavily soiled areas of carpet.

SECTION B: PREPARING THE MACHINE

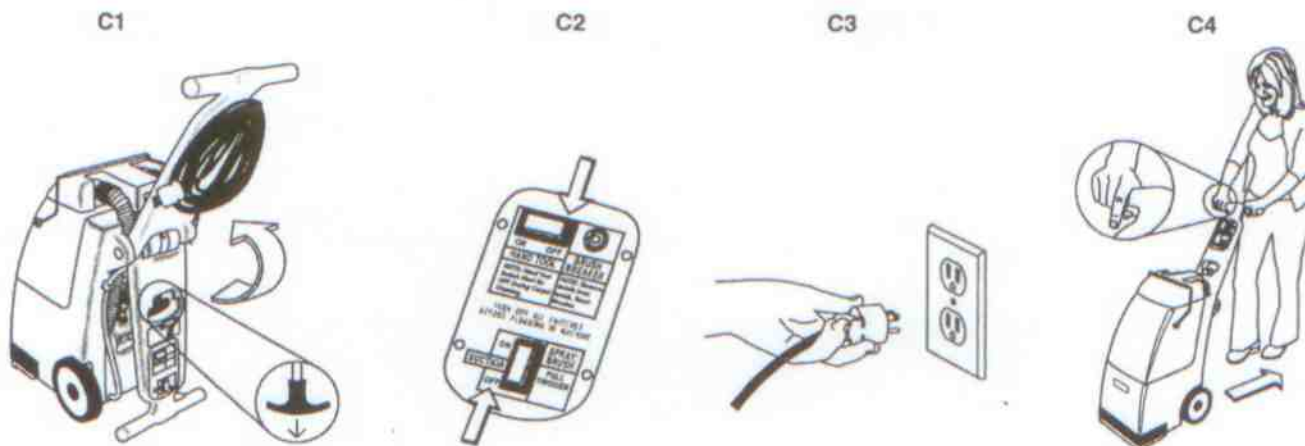
1. Pull *Bucket Handle* outward, lift the *Lid* and remove *Bucket*. 2. Fill *Bucket* with hot tap water to the 2.5 or 3.5 gallon fill line. Add 2 oz. (60 mL) of cleaner per gallon of water. 3. **IMPORTANT:** Pour *Bucket* contents into the *Solution Tank*. 4. Return *Bucket*, *Lid* and *Handle*.



WARNING! Do not use bleach or dye in this machine. User will be liable for all damage done to machine, carpets and upholstery.

SECTION C: CLEANING CARPET

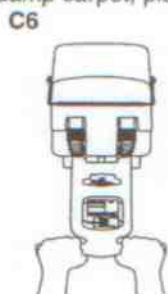
1. Adjust *Handle* to desired height using *Black "T" Handle*. 2. Make sure all *Switches* are off. Plug machine in. 3. Tilt the machine back and move to start position. 4. Turn **ON** the *Suction Switch*. **IMPORTANT:** *Hand Tool Switch* must be **OFF** during carpet cleaning! 5. Squeeze *Spray/Brush Trigger* as you pull the machine backwards.



TIP: Strokes should be at a slow, steady pace, five feet long with a two-inch overlap. Release *Spray/Brush Trigger* four inches before end of stroke. Heavily soiled areas may require a second cleaning at a right angle to the first cleaning.

IMPORTANT: After moving furniture on damp carpet, place foil under the legs **IMMEDIATELY** to avoid carpet staining.

IMPORTANT: If foam is in the left *Lid Tube*, add 2 ounces (60 mL) of Anti-Foam to the *Bucket*. Or, empty *Bucket* contents and replace without refilling the machine.



6. As you clean, dirty solution passes through the right *Lid Tube*. When extraction ceases, machine is empty. 7. Turn **OFF** *Switches*. Discard dirty water. Rinse *Bucket*. Refill according to instructions.



SECTION D: CLEANING STAIRS

1. Use the *Hand Tool* to clean stairs. (See **HAND TOOL HOOK UP**). 2. Clean upstairs rooms first, then stairs. **IMPORTANT:** When Cleaning the upper stairs, turn machine sideways so wheels are NOT facing forward, toward stairs. Be careful bringing the machine down wet stairs. *Make sure it is empty of all solution!* (See **EMPTYING UNUSED SOLUTION**.)
3. Turn on *Suction* and *Hand Tool* Switches. 4. Place *Hand Tool* suction lips on carpet and squeeze *Trigger* while pulling backwards.

UPHOLSTERY CLEANING

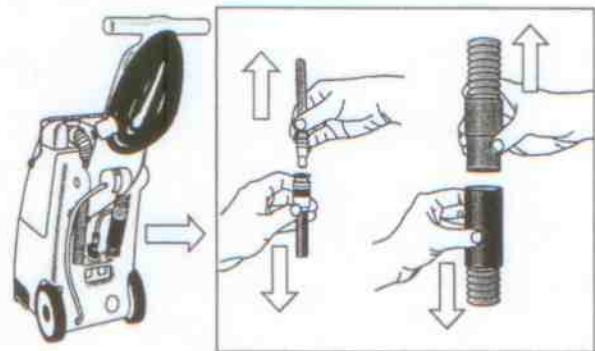
SECTION E: TESTING COLOR FASTNESS & FILLING THE MACHINE

1. Vacuum furniture with *your vacuum*, NOT the C-4 extractor. 2. Fill machine bucket to the 1.5 gallon fill line with warm water. Add 2 oz (60 mL) of Cleaner per gallon of water. 3. Dampen a white towel with mixture and in a hidden place rub the dampened towel on the upholstery. If a little color comes off you may still proceed, at your own risk. User assumes all risk.

IMPORTANT: Pour Bucket contents into the Solution Tank.

SECTION F: HAND TOOL HOOK UP

1. Turn OFF all *Switches*. Disconnect the *Gray* and *Black Cuffs* at the back of the machine. Attach *Gray Hand Tool Cuff* to *Gray Machine Cuff*. 2. To disconnect the machine *Solution Hose*, pull down on the middle of the *Coupler* (brass fixture) and machine hose will release. While still holding down, insert the hand tool *Solution Hose* into *Coupler* and release middle of *Coupler Sleeve*. To undo, pull down on middle of machine *Coupler* and *Hose* will release. Reattach machine *Solution Hose* when finished.

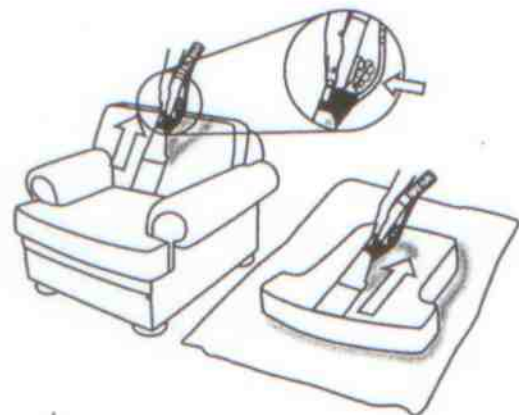


SECTION G: CLEANING UPHOLSTERY

1. Pre-treat spots after testing for color fastness.
2. Turn on *Suction* and *Hand Tool* Switches.
3. Clean furniture from bottom up. Place the hand tool suction lips on the furniture and squeeze *Trigger* while pulling towards you. Clean with overlapping, even strokes.

TIP: You may clean a second time at right angles to the first cleaning on especially soiled areas. Or, use a soft brush to agitate spots, if the material is not delicate or worn. Do not use circular motion. The less moisture you use, the better.

4. Clean cushions separately on a white sheet placed on the floor, so dye cannot transfer. Stand the cushions up A-frame style to dry.



EMPTYING UNUSED SOLUTION

Use the *Drain* located between the wheels on the back of the machine.



WARNING: DO NOT USE TO CLEAN HAITIAN COTTON!!

AFTER EACH USE

1. Wipe hair and debris from the *Lid*.
2. Drain unused solution from *Solution Tank*.
3. Dispose of solution and rinse *Bucket* thoroughly.
4. Clean out the *Vac Nozzle* with a hanger.
5. Remove fibers and hair from the *Brush*.
6. Wipe *Brush Chamber* clean with a towel.
7. Wipe off the exterior of the machine with a damp towel.

MACHINE OPERATION AND TROUBLESHOOTING

PROBLEM: LOSS OF ELECTRICAL POWER

- Check to see if power cord is plugged in.
- Check to see if switch is on.
- Check to see if the brush circuit breaker has tripped. Clear brush of debris until brush turns freely. Then reset the breaker.
- Check circuit breakers or fuse box in your building.
- Check if the outlet is wired to a light switch.
- If machine keeps blowing breakers or fuses every time you turn it on, have a qualified repair center check the equipment.

PROBLEM: LOSS OF VACUUM / LITTLE OR NO SUCTION

- Check if hose cuffs on back of the machine are connected. (See illustration on page 4.)
- Be sure the suction switch is on. If you don't hear any sound from the vacuum, have a qualified repair center check the equipment.
- Be sure the lid is firmly seated in the bucket and the handle is snapped in place.
- As you make a backwards-cleaning stroke, be sure the suction lips are down firmly on the carpet.
- Brush off any accumulated lint or debris on the vacuum filter screen located on the bottom of the lid.

PROBLEM: LACK OF WATER PRESSURE

- See if the cleaning solution was poured from the removable bucket into the solution tank.
- Pull the spray/brush trigger switch. The pump runs only when the trigger is pulled EXCEPT during hand tool use.
- Check to see if the solution hose is connected at the back of the machine.

PROBLEM: NO BRUSH MOVEMENT

- Pull the spray/brush trigger switch. If there is no movement, release trigger and check to see if the brush spins freely. Remove any lint and string caught on the brush. Reset the circuit breaker located on the handle. DO NOT attempt to reset the circuit breaker if it trips a second time. Have a qualified repair center check/repair the equipment.
- If the motor runs and brush will not spin (but it can be turned freely by hand), the belt needs to be replaced. See C-4 repair instructions for further details.

KENT INVESTMENT CORPORATION LIMITED WARRANTY

Kent Investment Corporation (the "Company") warrants each new machine against defects in material and workmanship under normal use and service for a period of six months from date of purchase. Our obligation under this warranty is limited to the making good at our factory or authorized distributor service station any part or parts thereof, except motors and pumps (see exception below), which within the warranty period are returned to our factory or authorized distributor service station, transportation prepaid, and which are determined by us to have been defective in workmanship or material. All parts being returned must be accompanied by date of purchase, name of party purchased from, invoice number and serial number of machine. Purchaser's exclusive remedy against defects in workmanship or material under this warranty shall be the repair or replacement of the returned part or parts as set forth above.

EXCEPTION: This warranty does not apply to motors or pumps used on Kent Investment machines. The motors and pumps carry a warranty of their own and are covered by the manufacturer of said motors and pumps.

This limited warranty does not cover any product or part(s), damage or defects resulting from misuse, neglect, accident, normal expected wear, improper installation or operation contrary to factory recommendations or unapproved, unauthorized repairs or alterations. Kent Investment Corporation reserves the right to inspect and make the final decision on any warranty claims that may be questionable.

Purchaser shall have no claim against the company in connection with this warranty, the company's machines, or otherwise, for consequential or incidental damages, including without limitation damages for loss of use, lost profits, or delayed delivery or expenses related to the receipt, transportation, or care of a new machine. In no event shall the company's liability with respect to each machine covered under this warranty exceed the price paid by purchaser for such machine.

TROUBLE SHOOTING GUIDE

ELECTRICAL SYSTEM

WARNING: Use only Kent Investment Corp. (KIC) Electrical components. They are the only components to comply with the Electrical Testing Laboratories (ETL) electrical safety listing. Non-approved components may void safety listing.

NOTE: When replacing electric terminals on wire nuts, a good crimp is essential. Double check new crimp. It should not have exposed wires.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
No power to the machine.	<ol style="list-style-type: none"> 1. Building circuit breaker tripped. 2. Defective wall outlet. 3. Defective <i>Plug</i>. 4. Loose Power Connection. 5. Defective <i>Power Cord</i>. 	<ol style="list-style-type: none"> 1. Unplug any other equipment on the same circuit. Wait five minutes, reset circuit. Note: If breaker continues to trip, try outlets on another circuit. If new circuit continues to trip, DO NOT use the unit. All motors and wires must be examined for defect. 2. Plug machine into different outlet. Also: Check if outlet is wired to a light switch. 3. Replace <i>Plug (10109)</i>. 4. Check <i>Wire Nuts (10149)</i> to black and white wires. 5. Replace <i>Power Cord (18205)</i>.
Power is intermittent to all or some of the motors.	<ol style="list-style-type: none"> 1. Loose <i>Terminal</i> or <i>Wire Nut</i>. 2. Burned or corroded <i>Terminals</i>. 3. Defective <i>Switch</i>. 4. Defective <i>Wire</i> or <i>Power Cord</i>. 	<ol style="list-style-type: none"> 1. Replace loose <i>Terminals</i> or <i>Wire Nut</i>. 2. Replace <i>Terminals</i>. 3. Replace <i>Switch (10108/18207)</i>. 4. Replace <i>Wire</i> or <i>Power Cord (18205)</i>.
Electrical Short.	<ol style="list-style-type: none"> 1. Damaged or loose wire connection that touches any metal on the machine. 2. Defective motor touching improperly grounded metal on the machine. 3. <i>Wire</i>, <i>Power Cord</i> or <i>Terminal</i> with worn insulation. 	<ol style="list-style-type: none"> 1. Check for damaged or loose wires and make sure all ground wires are properly connected. 2. Replace defective motor and make sure all ground wires are properly connected. 3. Replace <i>Wire</i>, <i>Power Cord</i> or <i>Terminal</i>.

VACUUM SYSTEM

SYMPTOM	POSSIBLE CAUSE	SOLUTION
<p>Vacuum motor is running with little or no vacuum to floor nozzle or hand tool nozzle.</p>	<p>1. <i>Lid</i> is not secure.</p> <p>2. Defective or missing <i>Lid Gasket</i>.</p> <p>3. Accessory hoses at back of the machine are not connected.</p> <p>4. Debris blockage on <i>Lid Filter Screen</i> or <i>Sight Tubes</i>.</p> <p>5. Blockage in <i>Vacuum Hose</i> or <i>Vacuum Nozzle</i>. NOTE: If <i>Vacuum Nozzle</i> plugs repeatedly the <i>Vacuum Hose</i> (10256) may be over threaded into the <i>Vacuum Nozzle</i>. Remove <i>Vacuum Hose</i> and rethread into <i>Vacuum Nozzle</i> without over threading.</p> <p>6. Loose <i>Vacuum Cuffs</i>.</p> <p>7. Hole in <i>Vacuum Hose</i>.</p> <p>8. Damaged or missing <i>Front</i> (10031) / <i>Rear</i> (10002) <i>Nozzle Clips</i>.</p>	<p>1. Secure <i>Lid</i> (7LID) with <i>Bucket Handle</i> (10086).</p> <p>2. Replace <i>Gasket</i>. (C4 :10081) / (C4-A :10232)</p> <p>3. Connect <i>Black</i> (10070) and <i>Gray</i> (10075) <i>Hose Cuffs</i>.</p> <p>4. Clean <i>Filter Screen</i>(10079), and <i>Sight Tubes</i> (10177 / 10078).</p> <p>5. First check vacuum at the accessory hook up at back of unit. If there is good suction at <i>Gray Cuff</i> (10075) then the block is between the <i>Black Cuff</i> (10070) and floor <i>Vacuum Nozzle</i> or <i>Hand Tool Nozzle</i>. Clean <i>Nozzle</i> using lint hook. Clean <i>Vacuum Hose</i> using water, compressed air or a hand held pipe snake. NOTE: <i>Vacuum Nozzle</i> should be cleaned with a lint hood regularly. If suction is poor at <i>Gray Cuff</i>, the block is between the <i>Cuff</i> and <i>Lid</i> or <i>Lid</i> and <i>Duct</i> (10073).</p> <p>6. Tighten <i>Vacuum Cuffs</i>. Check if threads are sealed with silicone. NOTE: DO NOT over tighten. This may cause <i>Vacuum Hose</i> to partially block <i>Vacuum Cuff</i>, catching debris and blocking vacuum. ALSO: Wipe off any excess silicone squeezed into hose.</p> <p>7. If small, patch. If large, replace <i>Vacuum Hose</i>.</p> <p>8. Replace <i>Nozzle Clips</i>. (See Repair Manual: <i>Replacing Front / Rear Nozzle Clips</i>).</p>

VACUUM SYSTEM CONTINUED

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Excessive <i>Vacuum Motor</i> noise.	1. Worn <i>Vacuum Motor</i> bearings and / or fan blades.	1. Replace <i>Vacuum Motor</i> . (18007) (See <i>Repair Manual: Removing Vacuum and Brush Assembly, and Replacing Vacuum Motor.</i>)
Burnt motor smell from clean air exhaust.	1. Worn <i>Vacuum Motor</i> brushes. NOTE: Excessive sparking may also occur.	1. Replace <i>Vacuum Motor</i> (18007). (See <i>Repair Manual: Removing Vacuum and Brush Assembly, and Replacing Vacuum Motor.</i>)
All switches are ON, ONLY <i>Vacuum Motor</i> does not run.	1. Defective <i>Vacuum Motor</i> . 2. Defective <i>Switch</i> . 3. <i>Terminals</i> not connected or defective.	1. TEST: Test <i>Vacuum Motor</i> (18007) using <i>Vacuum / Brush Motor Test Cable</i> (7202). If motor runs, there is a problem with the electrical system. NOTE: If motor does not work, replace <i>Vacuum Motor</i> (18007). (See <i>Repair Manual: Removing Vacuum and Brush Assembly, and Replacing Vacuum Motor.</i>) 2. Replace <i>Switch</i> (10108). 3. Re-connect or replace <i>Terminals</i> .
Dirty liquid is being discharged through the <i>Vacuum Motor Exhaust Tube</i> (C4:10101 / C4-A: 10608). NOTE: The solution is being sucked into the <i>Vacuum Motor</i> and then blowing out the <i>Exhaust Tube</i> . CLEAN UP Step 1: Sit the <i>Bucket</i> aside. Move the machine to concrete surface, such as the garage. Leave the <i>Lid</i> up. Run the <i>Vacuum Motor</i> only for 1 minute to blow out any remaining liquid. Step 2: Clean the discharged dirty liquid from carpet <i>immediately!</i> <i>Spot Remover</i> or <i>7 in 1</i> may be needed. ALSO: Using the <i>Hand Tool</i> may lift spot better.	1. The cleaning solution was not poured from the <i>Bucket</i> into the <i>Solution Tank</i> . 2. Foam is building up in the <i>Bucket</i> . 3. Too much liquid was added to the <i>Solution Tank</i> .	1. Pour the cleaning solution from the <i>Bucket</i> into the <i>Solution Tank</i> . 2. Empty <i>Bucket</i> without refilling the <i>Solution Tank</i> . If available, add Anti Foam to the emptied <i>Bucket</i> . 3. Empty <i>Bucket</i> without refilling the <i>Solution Tank</i> . Do not exceed top Fill Line of <i>Bucket</i> . Add less water to the <i>Solution Tank</i> during next cleaning cycle.

PUMP SYSTEM

SYMPTOM	POSSIBLE CAUSE	SOLUTION
<p><i>Pump (18006)</i> running (quietly or weak), with no or very little pressure to floor or hand tool spray tips.</p>	<p>1. Defective <i>Diode</i>. NOTE: The <i>Diode</i> controls which direction the piston pumps. If the <i>Diode</i> is defective, even a new <i>Pump</i> will not work.</p>	<p>1. TEST: Test the <i>Pump</i> using the <i>Pump Motor Test Cable (7201)</i>. If the <i>Pump</i> runs normally, replace the <i>Diode Assembly (10409)</i>. The <i>Diode Assembly</i> is the Black Wire connected to the <i>Pump</i> and brown wire next to the yellow wire on the <i>8 Wire Cable Assembly (18206)</i>. NOTE: Use only the <i>Pump Test Cable (7201)</i> to test the <i>Pump</i>. There is a <i>Diode</i> inline on this cable. ALSO: Over time the test <i>Diode</i> may need replacing.</p>
<p><i>Pump</i> running at full strength, very little or no pressure to floor or hand tool spray tips.</p>	<p>1. Empty <i>Solution Tank</i>. Check if cleaning solution is still in removable <i>Bucket</i>. This is a most common mistake. The solution must be poured from the <i>Bucket</i> into the <i>Solution Tank</i>.</p> <p>2. <i>Plug</i> is not connected to the <i>Brass Coupler</i>. NOTE: <i>Plug</i> may only appear to be connected to the <i>Coupler</i>.</p> <p>3. Clogged <i>Pump Filter</i>.</p> <p>4. Clogged <i>Spray Tips</i>.</p>	<p>1. Pour solution from the <i>Bucket</i> into the <i>Solution Tank</i>.</p> <p>2. Pull down on the middle of the <i>Coupler (10037)</i> sleeve, without letting up on sleeve, insert the <i>Plug (10038)</i>. Release the coupler sleeve. The sleeve must snap back into position. Give the hose a tug to ensure connection.</p> <p>3. Clean the <i>Pump Filter (10044)</i>. <i>Filter</i> is threaded to the <i>45D Brass Elbow (18211)</i> connecting the <i>Pump</i> to the <i>Solution Tank</i>. NOTE: Reinstall the <i>45D Elbow</i> and <i>Filter</i> carefully to avoid cross threading the <i>Solution Tank</i>.</p> <p>4. Remove and clean <i>Spray Tips (10042) / (10050)</i>.</p>

PUMP SYSTEM CONTINUED

SYMPTOM	POSSIBLE CAUSE	SOLUTION
<p><i>Trigger Switch</i> or <i>Hand Tool Switch</i> are activated and <i>Pump</i> DOES NOT run.</p>	<p>1. Loose <i>Wire</i> or <i>Terminal</i> connection. Or Defective <i>Switch</i> or <i>Terminal</i>.</p>	<p>1. Test: Test <i>Pump</i> using <i>Pump Motor Test Cable (7201)</i>. If <i>Pump</i> runs, there is a problem with electrical system. Look for a loose <i>Wire</i> or <i>Terminal</i> connection. Or replace <i>Trigger Switch (18207)</i>, <i>Hand Tool Switch (10108)</i>, <i>Diode Assembly (10409)</i>, <i>Crimp Nut (10149)</i> or <i>Spade Terminals (10119)</i>. If the <i>Pump</i> does not run, replace. (See <i>Repair Manual: Replacing the Pump Motor.</i>) Note: Order the <i>Diode Kit (16003)</i> when replacing <i>Diodes</i> in older units.</p>
<p><i>Pump</i> runs continuously.</p>	<p>1. <i>Hand Tool Switch</i> is on during carpet cleaning.</p> <p>2. Defective <i>Trigger Switch</i>. NOTE: A defective <i>Trigger Switch</i> will run <i>Pump</i> continuously but may operate <i>Brush Motor</i> normally.</p> <p>3. Stuck <i>Trigger Switch</i>.</p>	<p>1. Turn off <i>Hand Tool Switch</i>. NOTE: <i>Hand tool Switch</i> must be off during carpet cleaning.</p> <p>2. Replace <i>Trigger Switch (18207)</i>.</p> <p>3. Plastic around <i>Trigger Switch</i> may need to be trimmed.</p>

BRUSH SYSTEM

SYMPTOM	POSSIBLE CAUSE	SOLUTION
<p><i>Brush</i> will not turn when <i>Trigger Switch</i> is activated, but will turn freely by hand.</p>	<p>1. Defective <i>Trigger Switch</i>. NOTE: A defective <i>Trigger Switch</i> will NOT run the <i>Brush Motor</i> but may operate the <i>Pump</i> normally.</p>	<p>1. Test: Inspect <i>Terminals</i>. Test <i>Brush Motor (18005)</i> using <i>Vacuum/Brush Motor Test Cable (7202)</i>. If the motor runs there is a problem with the electrical system. Look for a loose <i>Wire</i> or <i>Terminal</i> connection. Or replace the <i>Trigger Switch (18207)</i> or <i>Spade Terminals</i>. If <i>Brush Motor</i> does not run, replace. (See <i>Repair Manual: Removing Vacuum and Brush Assembly, and Replacing Brush Motor</i>).</p>

BRUSH SYSTEM CONTINUED

SYMPTOM	POSSIBLE CAUSE	SOLUTION
<p><i>Brush will not turn when Trigger Switch is activated, but will turn freely by hand.</i></p>	<p>2. <i>Brush Motor Circuit Breaker</i> has tripped.</p> <p>3. <i>Loose Wire, Crimp Nut or Terminal</i> connection.</p> <p>4. <i>Reversed wires.</i></p> <p>5. <i>Broken Gear Belt.</i></p> <p>6. <i>Slipping Pulley (10010).</i></p>	<p>2. Insure that <i>Brush (10013)</i> turns freely by hand. Reset <i>Circuit Breaker (10113)</i>. NOTE: If <i>Brush</i> does not turn freely by hand inspect <i>Brush Assembly (18210)</i>. (See <i>Repair Manual: Removing Brush Assembly, and Rebuilding Brush Assembly</i>).</p> <p>3. Reconnect loose connection or replace <i>Crimp Nut</i> or <i>Spade Terminal</i>.</p> <p>4. <i>Black wire</i> must be connected to red and black wire. <i>White wire</i> must be connected to solid red wire.</p> <p>5. Replace <i>Gear Belt (10011)</i>.</p> <p>6. Reattach <i>Pulley (10010)</i> to <i>Brush Shaft (10012)</i> ensuring set screws and dimples in <i>Brush Shaft (10012)</i> align.</p>
<p><i>Brush will NOT turn when Trigger Switch is activated and will not turn by hand.</i></p>	<p>1. <i>Debris clogging Bearing Assy / seized Bearings.</i></p> <p>2. <i>Seized Brush Motor.</i></p>	<p>1. Remove <i>Brush Assembly (18210)</i> Clean/replace: <i>Bearings (10017)</i>, <i>Bearing Block (10195)</i>, <i>Brush Washer (10183)</i>.</p> <p>2. Replace <i>Brush Motor (18005)</i>. Also inspect <i>Brush Assembly (18210)</i>.</p>
<p><i>Brush Motor runs continuously.</i></p>	<p>1. <i>Defective Trigger Switch. NOTE:</i> A defective <i>Trigger Switch</i> will run <i>Brush Motor</i> continuously but may operate the <i>Pump</i> normally.</p>	<p>1. Replace the <i>Trigger Switch (18207)</i>.</p>