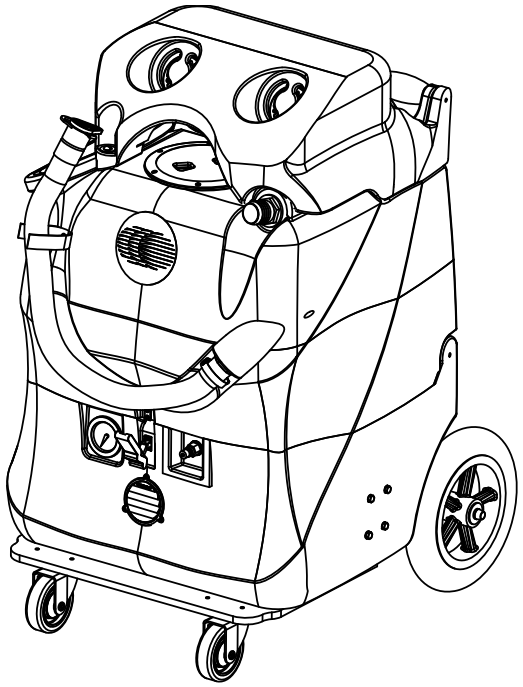
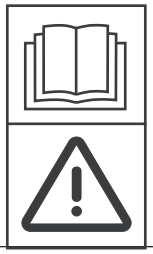
U.S. PRODUCTS

SOLUS-500 EXTRACTOR

120V



INFORMATION & OPERATING INSTRUCTIONS



DO NOT OPERATE MACHINE UNTIL YOU HAVE READ ALL SECTIONS OF THIS INSTRUCTIONS
IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

1. Always use a defoamer when foaming occurs to prevent vacuum motor damage.
2. Keep machine from rain and snow, extremes in temperatures, and store in a heated location. DO NOT let the machine or the wand freeze. Do not use outdoors.
3. Do not let the pump run dry.
4. Use approved chemicals only. NO SOLVENTS.
5. Wear gloves or use rags when removing quick disconnects to prevent burns.
6. Never use water above 130 ºF/54 ºC in the solution tank.

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IMPORTANT SAFETY INSTRUCTIONS

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

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

NOTE: Read all instructions before using this machine.

⚠ WARNING!

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

- Do not leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only as described in this manual. Use only the manufacturer's recommended attachments.
- Never add water over 130º F/54º C to the solution tank.
- Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- Do not pull by the cord, use the cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Do not run the machine over the cord. Keep the cord away from heated surfaces. To unplug, grasp the plug, not the cord.
- Do not handle the plug, the cord or the machine with wet hands.
- Extension cords must be 12/3 and no longer than 50 feet. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep loose clothing, hair, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes, or any health endangering dusts. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Connect to a properly grounded outlet only.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure, or chemical content.

INSPECTION:

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

CLEANING SOLUTIONS:

We recommend liquid cleaning chemicals. Powder chemicals may be used, but unless mixed very thoroughly they could cause a build-up in the pump, lines, heat exchanger and/or quick disconnects. Any problem caused by a chemical build-up is not covered by warranty. Use a neutral cleaner with a pH between 5 and 10 to avoid premature wear of the pump, seals, and/or other components. Damage caused by the use of strong chemicals is not covered by the warranty.

MAINTENANCE:

For optimum performance flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. The vacuum motor, pump motor, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours, and the pump and bypass valve may require rebuild kits after 1000 - 1500 hours, typically (refer to machine part list for numbers). Clean the body with an all-purpose detergent, and protect it with an automobile interior polish. Lubricate the wheels, castors, and quick disconnects with an all purpose silicone spray.

PARTS AND SERVICE:

Repairs, when required, should be performed by your authorized distributor who maintains an inventory of original replacement parts and accessories. Call the distributor from whom you purchased this machine if you need parts and service. Be sure to specify the machine model. Have your serial number handy.

Serial Number: _____

Model: SOLUS-500-B

Purchase Date:_____

Write the name and phone number of your distributor:

_____

_____

(and be sure to register your purchase to activate your warranty)

KNOW YOUR MACHINE

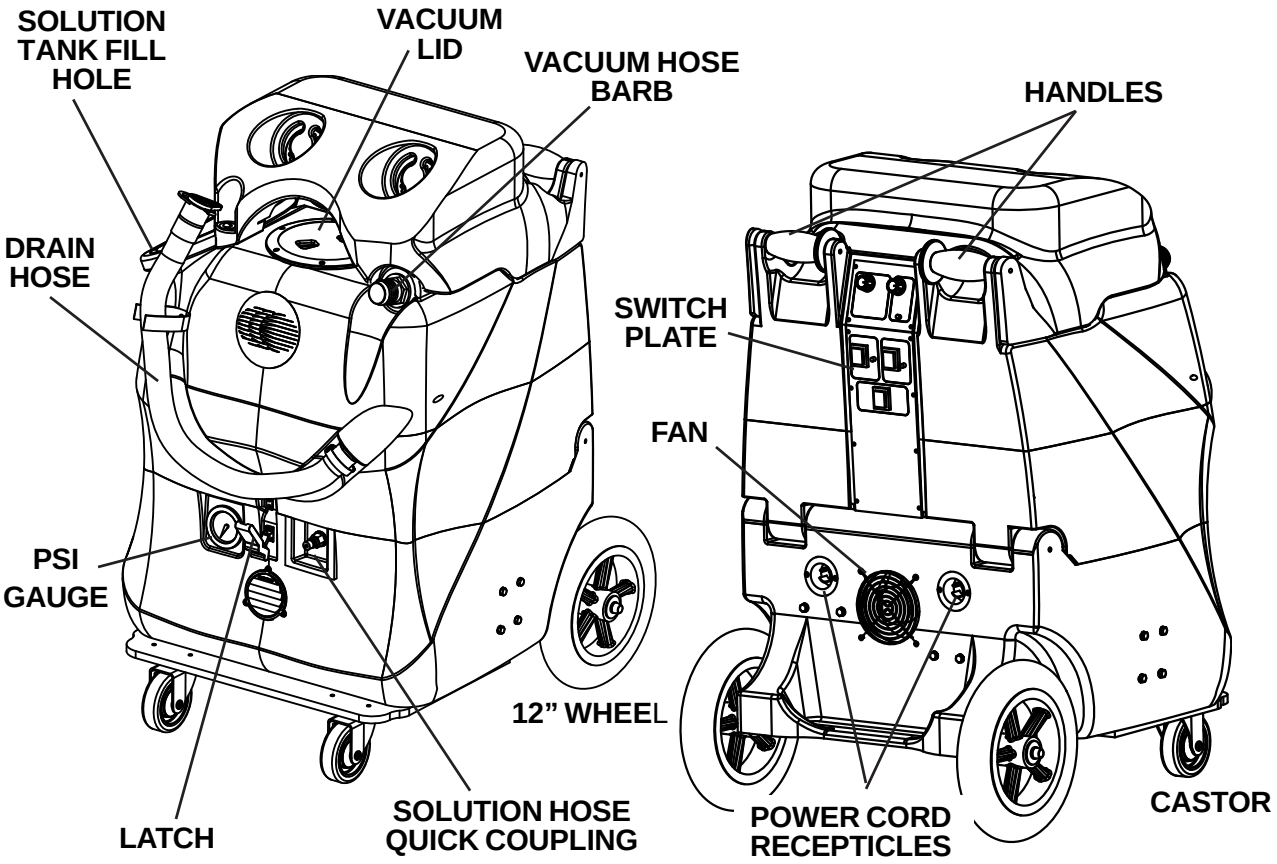
VACUUM LID - This lid provides access into your recovery tank so that you can clean the tank. The lid must be closed before you try to clean..

SOLUTION TANK FILL HOLE - This is where you fill the tank with water and cleaning solution.

VACUUM HOSE BARB - This is where you connect your vacuum hose to the machine. A tight connection is necessary to prevent a vacuum leak which would reduce the amount of suction.

DRAIN HOSE - This is how you empty the dirty water from your recovery tank. Place the hose over a drain, and open the cap. When cleaning out the tank at the end of a job, simply place this hose into a drain and use clean water to rinse out the dirt and debris from the tank. **NOTE**: be sure to close the cap tightly before using the machine again.

HANDLES - The handles are used to move the machine. These handles allow you to tilt the machine back onto it's 12" wheels for easy maneuvering, and/or for moving on stairways.



SWITCH PLATE - The switches are located on the rear of the machine, out of the way of water

FAN - Removes warm air from the component compartment.

PSI GAUGE - indicates the pump pressure. Look at the pressure while you spray.

LATCH - The latch holds together the tank and the base compartment.

SOLUTION HOSE QUICK COUPLING- This is where you connect the solution line that runs from the machine to the carpet wand or hand tool.

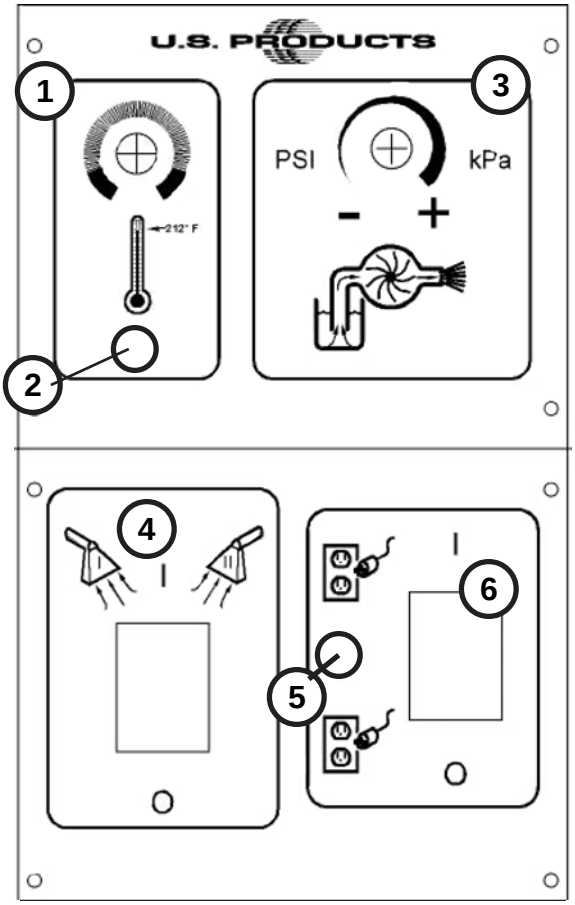
POWER CORD RECEPTACLES - The receptacles are where the two power cords connect to the machine.

CASTOR - Swivel castor provides easy maneuverability.

WHEEL - The rear wheels are 12 inches in diameter to provide superior ease of transportation and stair climbing.

SWITCH PLATE

SOLUS-500
SWITCH PLATE



HEAT CONTROL (1):
This dial controls the water temperature. Turn it clockwise to increase water temperature and counterclockwise to decrease temperature. The heater will operate only if the circuit locator light (#5) or the bypass switch (#6) is on.

HEAT MODE LIGHT (2):
This light will only illuminate when the heater is heating and will turn off when it reaches operating temperature. During normal operation, the "MODE" light will be on most of the time.

PUMP CONTROL (3):
This dial controls motor speed and pump pressure. Adjust the dial clockwise to increase pressure and counterclockwise to decrease pressure or turn off pump. The pump runs off of cord #1. The pump spraying pressure will be observable at the pressure gauge.

VACUUM SWITCH (4):
This switch will illuminate when the vacuum motors are on. The vacuum motors run off of cord #1.

CIRCUIT LOCATOR (5):
When this light is on, it indicates that cord #2 (Identified by the red "H" on the back of the extractor.) is on a separate line from cord #1. Cord #2 supplies voltage to the heater allowing it to heat to the temperature range indicated by the Heat Control dial (#1) on the switch plate.

BYPASS SWITCH (6):
The bypass switch will illuminate when it is activated and will completely bypass the circuit locator system. Use this system only when the circuit locator light will not turn on and you know each cord is on a separate circuit.

CAUTION: THE CIRCUIT BREAKER CAN TRIP IF BOTH CORDS ARE ON THE SAME CIRCUIT AND THE BYPASS (heat) SWITCH IS TURNED ON.

NEVER LET YOUR MACHINE OR YOUR WAND FREEZE

SET-UP AND OPERATION:

1. Fill the holding tank with clear water and pre-spray with the detergent of your choice (we recommend a CRI approved chemical). Mix well. Although this machine is designed to supply instant hot water, the addition of warm water to the holding tank would increase heater efficiency.

   Never use water above 130º F/54º C in the solution tank.
2. Turn off all the switches. Plug in cord #1. (This cord runs the pump and vacuum).
3. Attach the priming hose to the machine and place the open end into the tank.
4. Turn on the pump (turn pump pressure dial all the way clockwise) and let it run until the pump is fully primed (approximately 30 seconds to 1 minute). Once the pump is primed, turn off the pump and disconnect the priming hose. Attach the cleaning hose and tool.

IF YOU WANT HEATED SOLUTION:

5. Plug in the heater cord (identified by "H" on the back of the machine). **NOTE:** If the green circuit indicator light does not illuminate when the heater cord is plugged in, then both cords are on the same circuit. Try other outlets until the light comes on. See Bypass Switch section (below) if you are unable to get a green light.
6. Turn the heat knob, clockwise, to the desired temperature.
7. Turn on the pump and spray through your tool a few times to fill the lines with solution. Begin cleaning.
8. Refill and empty the tanks as necessary.
9. When finished with the job, vacuum all unused solution into the recovery tank, and dump the tank. Clean the tanks and filters. Clean the tool and hoses. Store the machine in a heated location.

ELECTRIC CIRCUIT LOCATOR:

This unique, patented "smart system," operated by a solid state circuit, will inform the operator when the two cords are plugged into separate lines by illuminating the green indicator light. This helps prevent tripping circuit breakers.

BYPASS SWITCH:

The bypass switch (#6) completely bypasses the circuit locator system. Use this feature when you cannot get the green Locator light (#5) to come on and you believe that the two cords are on separate circuits.

CAUTION: If the bypass switch is on when the two cords are plugged into the same circuit, the circuit breaker in the wall panel may trip.

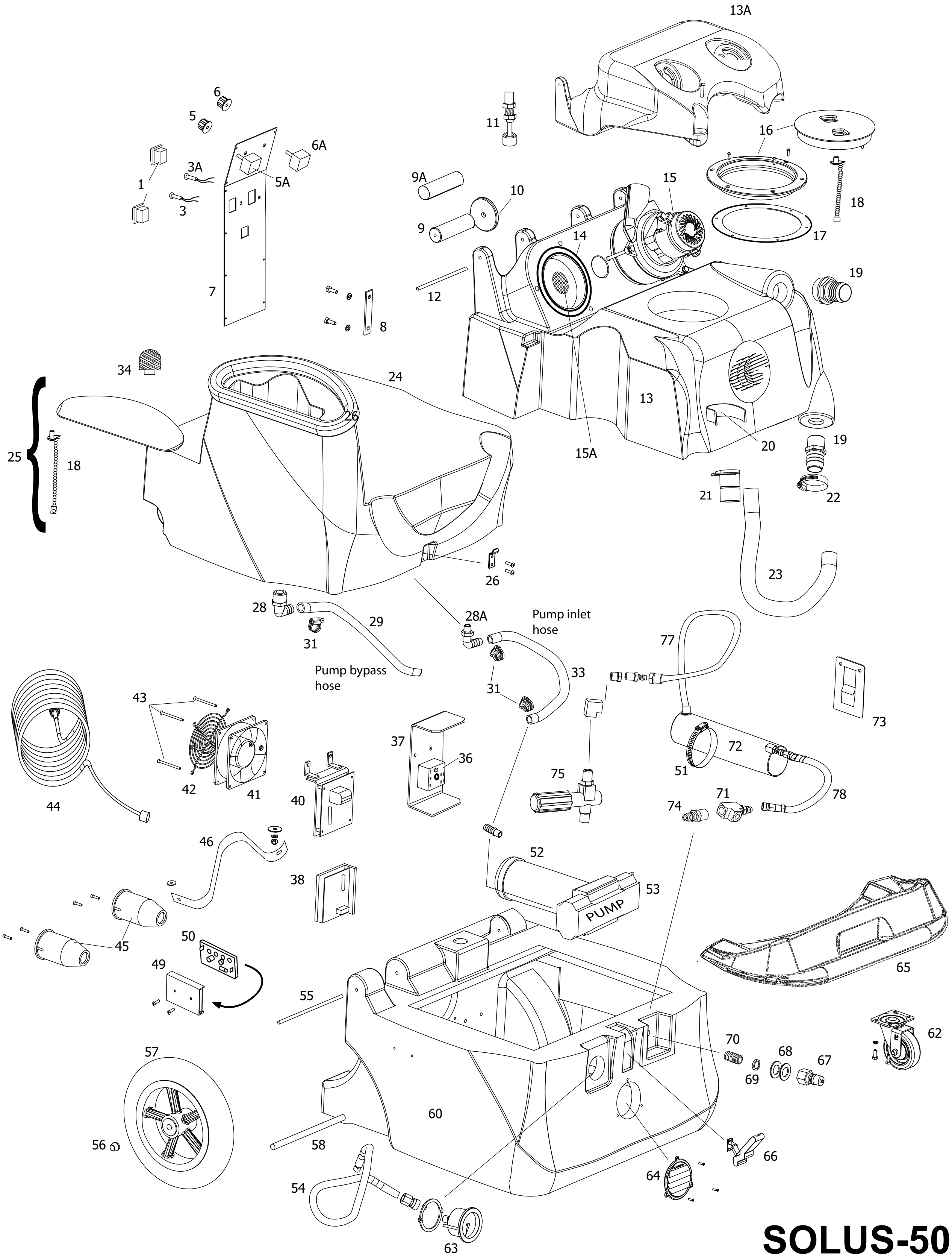
AUTO VACUUM SHUT-OFF:

When the recovery tank is full, the float system will shut off the vacuum motor to prevent the machine from overflowing. The float may not work in foam. Always use a defoamer to prevent overflow. Once the vacuum motor shuts off, the vac switch (#7) must be turned off, the recovery tank emptied, and then the vacuum switch turned back on (up position) to get the vacuum motor started again.

CAUTION: Always make sure the float is clean and travels freely before turning on the machine. A float that is stuck will cause the vacuum motor to suck in water, resulting in vac motor damage.

PUMP PRESSURE:

Make sure the cleaning tool is spraying when adjusting the pressure, otherwise the pressure reading will be inaccurate.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SOLUS-500

SOLUS-500 EXTRACTOR

PART LIST

120V

ITEM	PART No	DESCRIPTION
1	FP578	Switch, DPDT,with cover
3	78B	Light, red
3A	78	Light, green
5	248	Knob, red
5A	FP544	Potentiometer, heat, w/wires & knob
6	249	Knob, blue
6A	FP543	Potentiometer, pump, w/wires & knob
7	2093A	Switch plate
8	4404C	Mating bar
9	2106	Handle
9A	1590	Grip, handle
10	2105	Wheel, handle
11	FP478	Float assembly, electric
12	801E	Hinge pin, 7”
13	FP594	Tank, Vacuum
13A	VC-BLK1	Cover, for vacuum motors
14	2013A	Gasket, vacuum
15	408E	Vacuum motor, 120V
15A	1589	Screen, 1/8 S/S mesh
16	2086A	Lid & ring, vacuum
17	1074	Gasket, vacuum lid
18	FP436	Chain, 8”
19	907	Hose barb, 1-1/2”
20	1130	Strap, Velcro, 9”
21	1060C	Cap, drain hose
22	1518	Hose Clamp
23	1060B	Hose, drain
24	FP582	Tank, Holding
25	FP545	Lid & chain, Holding Tank
26	909A	Latch strike
28	1113	Hose barb, 90°, 1/2” hose
28A	1115	Hose barb, 90°, 3/8” hose
29	925	Hose, 3/8” ID X 20”
31	166	Hose clamp
33	946	Hose, 1/2” ID X 17”
34	207A	Filter, pump inlet
36	See Miscellaneous *	
37	918	Heat Sink plate
38	FP361	Motor Speed Control PCB, pump
40	FP225	Vacuum Motor Control PCB
41	2014	Fan, 120V
42	2015	Guard, fan
43	2B1	Screw, 6-32 X 2-1/4”
44	1057B	Power Cord, 12/3, 25 ft
45	1062	Receptacle, AC power in
46	1476	Strap, 17”
49	FP336	PCB mounting track, 4”

ITEM	PART No	DESCRIPTION
50	923B	Dual Cord Sensor PCB
51	198	Hose clamp
52	948B	Motor, DC, for pump
53	FP592	Pump complete, no mtr
54	FP542	Hose assembly, pump to gauge
55	801D	Hinge pin, 4.75”
56	27A	Axle Cap
57	2092	Wheel, 12”
58	910-23.75	Axle rod
60	BUPE-BLK	Base compartment
62	905	Castor, 4”
63	2165	Gauge, Pump pressure
64	928	Louver, 3”, gray
65	FP585	Castor Plate
66	908	Latch
67	45	Quick Disconnect, male. 1/4 p.t.
68	115	Washer, fiber
69	116A	Bushing, Teflon
70	92A	Nipple, 1/4 p.t. S/S
71	216	Elbow, brass
72	FP540	Heat Exchanger, complete
73	455	Mount bracket, heater
74	223	Quick Disconnect, male
75	945D	Unloader valve
77	1373A	Hose assembly, heater inlet
78	2183	Hose, S/S, braided, heater outlet

MISCELLANEOUS PARTS

*FP194E	Heat repair kit includes thermistor control, thermistor probe & cutout
950CP	Pump rebuild kit, valves and o-rings
250	Pump rebuild kit, piston and seals
950D	Cam/bearing, pump drive
FP619	Bag, pre-filter for recovery inlet

parts in kits are not sold separately

TROUBLE SHOOTING:

IF THIS OCCURS	CHECK THIS
NO SPRAY	Solution tank is empty. Clogged spray tip. Pump not running or not primed. Valve on wand not operating.
PUMP DOES NOT RUN	Check the brushes in the pump motor. Replace if necessary. No power to pump. Test the Motor Speed Control Circuit Board and potentiometer.
LOW SUCTION	Debris is plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum dome is not seated or is damaged.
NO SUCTION	No power to motor. Test the Electronic Float. Test the switch. Test the vacuum motor. Test the Vacuum Circuit Board.
LOW HEAT	Spraying too long. Try spraying for 12-15 seconds, or about three strokes. Heat exchanger needs to be flushed. Wrong tool being used. Too much water passing through. Longer hose or larger diameter hose, than standard.
NO HEAT	Heat is not turned on. Either the green light must be on or the bypass switch must be turned on. No power in the wall outlet - check to see if the breaker has tripped. No power to the bypass switch - check wiring for 'opens." No power out of bypass switch, follow troubleshooting steps to isolate the problem. Call your distributor for additional help.

If you can not solve the problem from this chart, contact the distributor from whom you purcahsed your machine

SPECIFICATIONS:

Rotomolded Body:	**Lifetime Warranty**
Vacuum:	**Two 5.7", 3-stage**
VAC Shutoff:	**Electronic**
Pump:	**Positive displacement, fully adjustable 0-500 psi**
Waterlift:	**100" -- 170 CFM**
Heat:	**Adjustable to 212° F**
Heater:	**2000 Watts**
Wand:	**Stainless steel, double bend, twin tip**
Weight:	**110 lbs.**
Dimensions:	**24W x 28L x 41H (inches)**

SOLUS-500
EXTRACTOR
120V

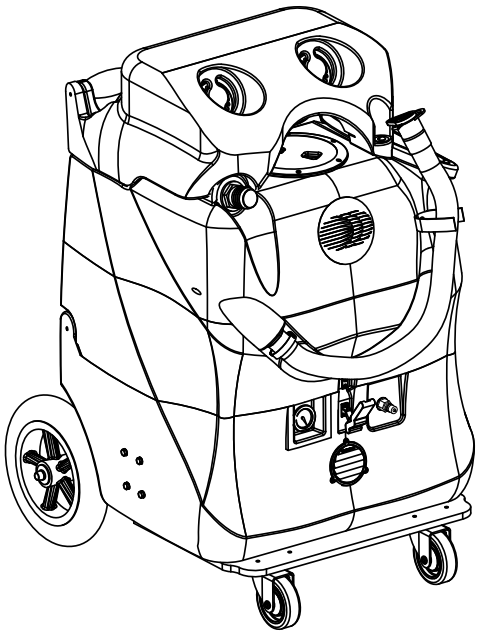
NOTES:

U.S. PRODUCTS

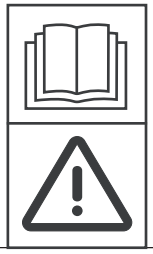
U.S. PRODUCTS

SOLUS-500R EXTRACTOR

120V



INFORMATION & OPERATING INSTRUCTIONS



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

IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

1. Always use a defoamer when foaming occurs to prevent vacuum motor damage.
2. Keep machine from rain and snow, extremes in temperatures, and store in a heated location. DO NOT let the machine or wand freeze. Do not use outdoors.
3. Do not let the pump run dry.
4. Use approved chemicals only. NO SOLVENTS.
5. Wear gloves or use rags when removing quick disconnects to prevent burns.
6. Never use water above 130 ºF/54 ºC in the solution tank.

NEVER LET YOUR MACHINE OR YOUR WAND FREEZE

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5-2010

IMPORTANT SAFETY INSTRUCTIONS

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NOTE: Read all instructions before using this machine.

 **WARNING!**

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

- Do not leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only as described in this manual. Use only the manufacturer's recommended attachments.
- Never add water over 130º F/54º C to the solution tank.
- Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- Do not pull by the cord, use the cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Do not run the machine over the cord. Keep the cord away from heated surfaces. To unplug, grasp the plug, not the cord.
- Do not handle the plug, the cord or the machine with wet hands.
- Extension cords must be 12/3 and no longer than 50 feet. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep loose clothing, hair, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes, or any health endangering dusts. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Connect to a properly grounded outlet only.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure,or chemical content.
- Never turn your pump on without a tool or the priming hose connected.

INSPECTION:

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

CLEANING SOLUTIONS:

We recommend liquid cleaning chemicals. Powder chemicals may be used, but unless mixed very thoroughly they could cause a build-up in the pump, lines, heat exchanger and/or quick disconnects. Any problem caused by a chemical build-up is not covered by warranty. Use a neutral cleaner with a pH between 5 and 10 to avoid premature wear of the pump, seals, and/or other components. Damage caused by the use of strong chemicals is not covered by the warranty.

MAINTENANCE:

For optimum performance flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. The vacuum motor, pump motor, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours, and the pump and bypass valve may require rebuild kits after 1000 - 1500 hours, typically (refer to machine part list for numbers). Clean the body with an all-purpose detergent, and protect it with an automobile interior polish. Lubricate the wheels, castors, and quick disconnects with an all purpose silicone spray.

PARTS AND SERVICE:

Repairs, when required, should be performed by your authorized distributor who maintains an inventory of original replacement parts and accessories. Call the distributor from whom you purchased this machine if you need parts and service. Be sure to specify the machine model. Have your serial number handy.

Serial Number: _____

Model: SOLUS-500R

Purchase Date:_____

Write the name and phone number of your distributor:

_____

_____

(and be sure to register your purchase to activate your warranty)

KNOW YOUR MACHINE

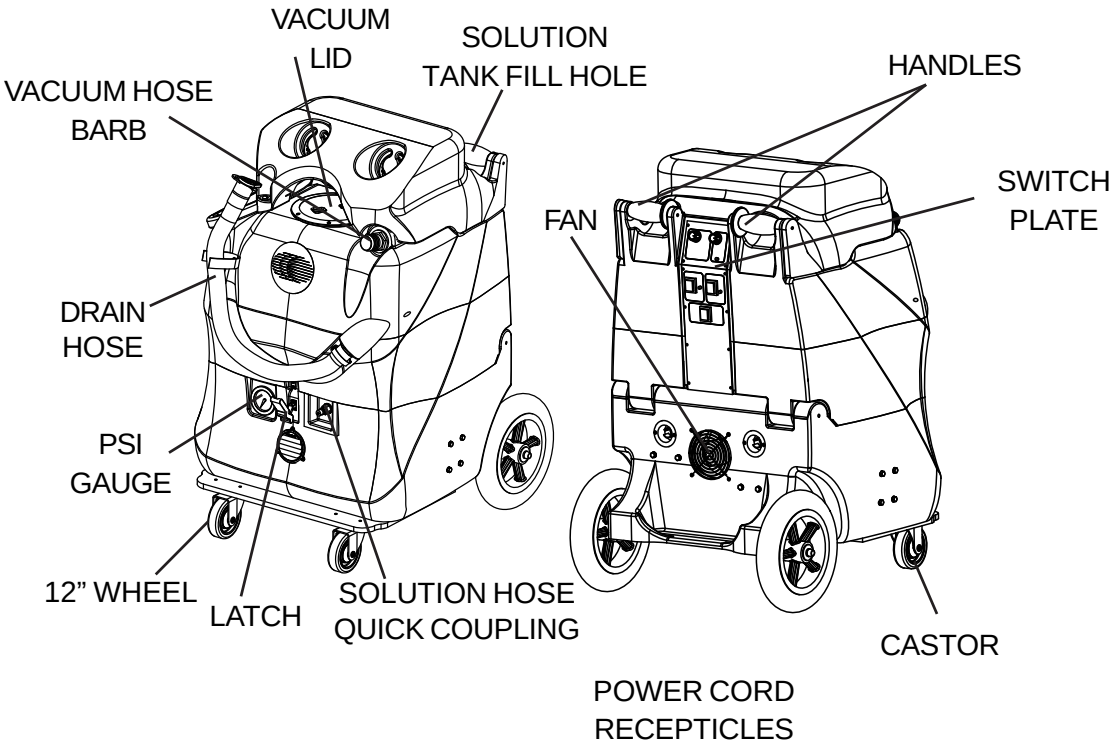
VACUUM LID - This lid provides access into your recovery tank so that you can clean the tank. The lid must be closed before you try to clean..

SOLUTION TANK FILL HOLE - This is where you fill the tank with water and cleaning solution.

VACUUM HOSE BARB - This is where you connect your vacuum hose to the machine. A tight connection is necessary to prevent a vacuum leak which would reduce the amount of suction.

DRAIN HOSE - This is how you empty the dirty water from your recovery tank. Place the hose over a drain, and open the cap. When cleaning out the tank at the end of a job, simply place this hose into a drain and use clean water to rinse out the dirt and debris from the tank. **NOTE**: be sure to close the cap tightly before using the machine again.

HANDLES - The handles are used to move the machine. These handles allow you to tilt the machine back onto it's 12" wheels for easy maneuvering, and/or for moving on stairways.



SWITCH PLATE - The switches are located on the rear of the machine, out of the way of water

FAN - Removes warm air from the component compartment.

PSI GAUGE - indicates the pump pressure. Look at the pressure while you spray.

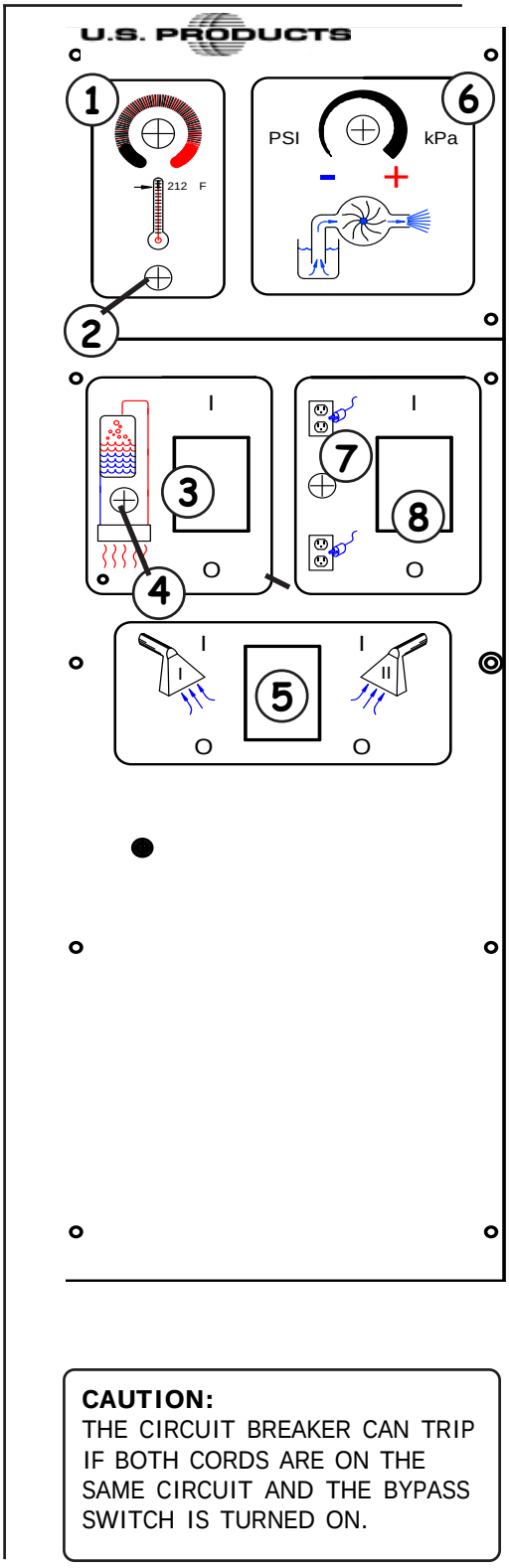
LATCH - The latch holds together the tank and the base compartment.

SOLUTION HOSE QUICK COUPLING- This is where you connect the solution line that runs from the machine to the carpet wand or hand tool.

POWER CORD RECEPTACLES - The receptacles are where the two power cords connect to the machine.

CASTOR - Swivel castor provides easy maneuverability.

WHEEL - The rear wheels are 12 inches in diameter to provide superior ease of transportation and stair climbing.



CAUTION:
THE CIRCUIT BREAKER CAN TRIP IF BOTH CORDS ARE ON THE SAME CIRCUIT AND THE BYPASS SWITCH IS TURNED ON.

HEAT CONTROL (1):
This dial controls the water temperature. Turn it clockwise to increase water temperature and counterclockwise to decrease temperature. The heater will operate only if the circuit locator light (#5) or the bypass switch (#6) is on.

HEAT MODE LIGHT (2):
This light will only illuminate when the heater is heating and will turn off when it reaches operating temperature. During normal operation, the "MODE" light will be on most of the time.

HEAT RECIRCULATION SWITCH (3):
This switch will energize a solenoid that will pump heated water back into the holding tank in order to pre-heat the cleaning solution -- up to 125 °F.
NOTE: this switch must be turned OFF before priming and before trying to clean

HEAT RECIRCULATION LIGHT(4):
This light will illuminate when the heated water is being pumped back into the holding tank.

VACUUM SWITCH (5):
This switch will illuminate when the vacuum motors are on. The vacuum motors run off of cord #1.

PUMP CONTROL (6):
This dial controls motor speed and pump pressure. Adjust the dial clockwise to increase pressure and counterclockwise to decrease pressure or turn off pump. The pump runs off of cord #1. The pump spraying pressure will be observable at the pressure gauge only while you spray; it will read zero when not spraying.
NOTE: Never turn the pump on without a tool or your priming hose connected to the machine.

CIRCUIT LOCATOR (7):
When this light is on, it indicates that cord #2 (Identified by the red "H" on the back of the extractor.) is on a separate line from cord #1. Cord #2 supplies voltage to the heater allowing it to heat to the temperature range indicated by the Heat Control dial (#1) on the switch plate.

BYPASS SWITCH (8):
The bypass switch will illuminate when it is activated and will completely bypass the circuit locator system. Use this system only when the circuit locator light will not turn on and you know each cord is on a separate circuit.

SET-UP and OPERATION:

1. Fill the holding tank with clear water and prespray with the detergent of your choice (we recommend a CRI approved chemical). Mix well. Although this machine is designed to supply instant hot water, the addition of warm water to the holding tank would increase heater efficiency. Never use water above 130º F/54º C in the solution tank.
2. Turn off all the switches. Plug in cord #1. (This cord runs the pump and vacuum). **NOTE**: **TURN THE HEAT RECIRCULATION SWITCH OFF BEFORE PRIMING THE PUMP.**
3. Attach the priming hose to the machine and place the open end into the tank.
4. Turn on the pump (turn pump pressure dial all the way clockwise) and let it run until the pump is fully primed (approximately 30 seconds to 1 minute). Once the pump is primed, turn off the pump and disconnect the priming hose. Attach the cleaning hose and tool.

IF YOU WANT HEATED SOLUTION:

5. Plug in the heater cord (identified by "H" on the back of the machine). **NOTE:** If the green circuit indicator light does not illuminate when the heater cord is plugged in, then both cords are on the same circuit. Try other outlets until the light comes on. See Bypass Switch section (below) if you are unable to get a green light.
6. Turn the heat knob clockwise to the desired temperature.

IF YOU WANT TO PRE-HEAT THE SOLUTION IN THE HOLDING TANK

7. Turn on both the pump and heat recirculation switches. **NOTE:** this switch will recirculate heated water back to the holding tank, until it reaches 125 °F. At that point, the recirculation will automatically stop. If the temperature of the water in the tank drops below 125 °F, and if the recirculation switch is still turned ON, the system will begin to recirculate the water again until it gets back up to 125 °F. You can choose to let the solution in your holding tank reach 125° or you can choose to begin cleaning sooner than that.

NOTE: the time that it will take for your solution to reach 125 °F will vary with the temperature of the solution that you put into the tank, the ambient temperature, the amount of solution in your tank, etc.

8. Turn on the pump and spray through your tool a few times to fill the lines with solution. Begin cleaning.
9. Refill and empty the tanks as necessary.
10. When finished with the job, vacuum all unused solution into the recovery tank, and dump the tank. Clean the tanks and filters. Clean the tool and hoses. Store the machine in a heated location.

ELECTRIC CIRCUIT LOCATOR:
This unique, patented "smart system," operated by a solid state circuit, will inform the operator when the two cords are plugged into separate lines by illuminating the green, indicator light. This helps prevent tripping circuit breakers.

CONTINUE ON NEXT PAGE

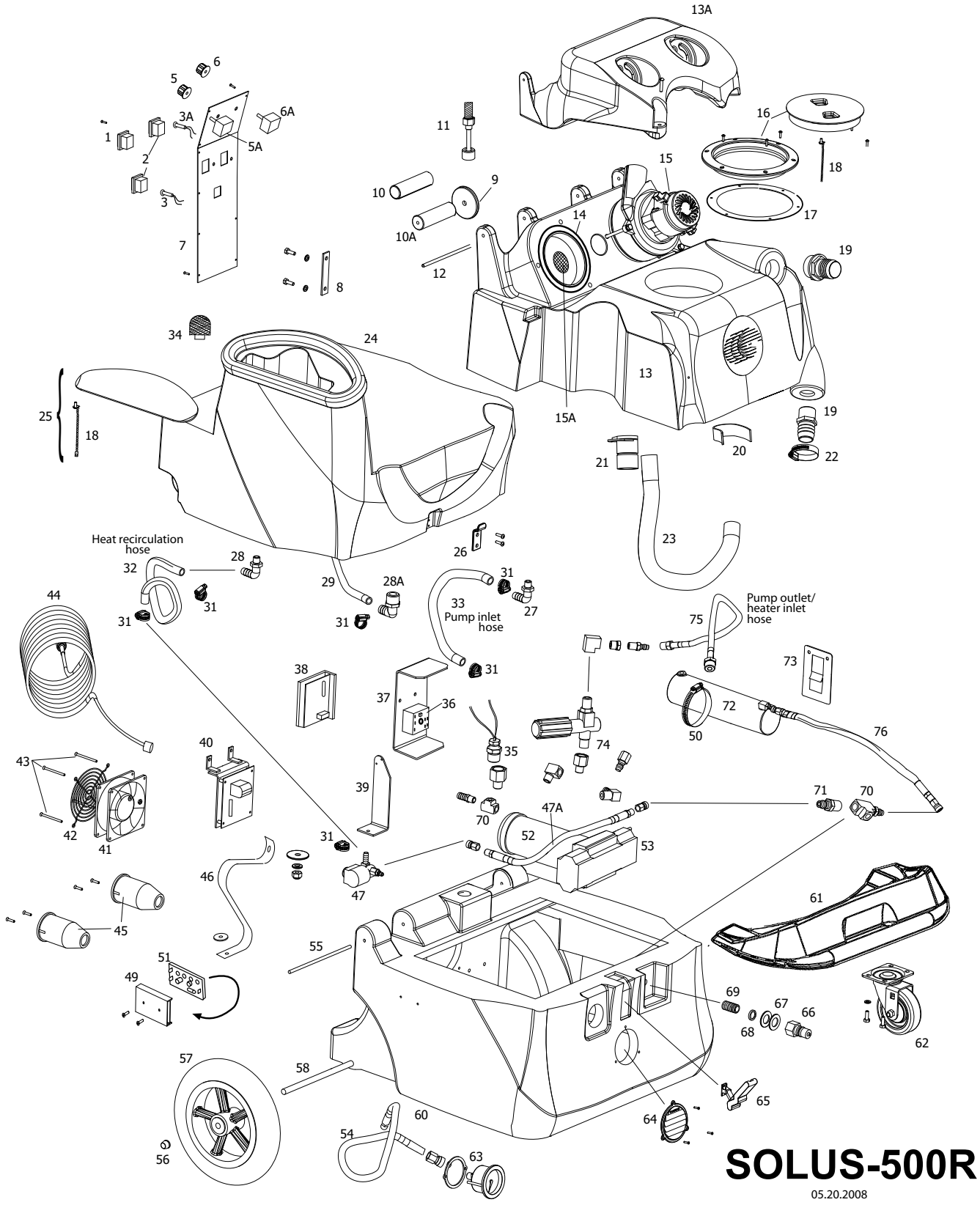
OPERATION CONTINUED

YOU MUST TURN THE HEAT RECIRCULATION SWITCH OFF BEFORE YOU CAN PRIME THE PUMP AND BEFORE YOU BEGIN CLEANING, otherwise your pump pressure will be very low.

BYPASS SWITCH:
The bypass switch (#6) completely bypasses the circuit locator system. Use this feature when you cannot get the green Locator light (#5) to come on and you believe that the two cords are on separate circuits.
CAUTION: If the bypass switch is on when the two cords are plugged into the same circuit, the breaker may trip.

AUTO VACUUM SHUT-OFF:
When the recovery tank is full, the float system will shut off the vacuum motor to prevent the machine from overflowing. The float may not work in foam. Always use a defoamer to prevent overflow. Once the vacuum motor shuts off, the vac switch (#7) must be turned off, the recovery tank emptied, and then the vacuum switch turned back on (up position) to get the vacuum motor started again.
CAUTION: Always make sure the float is clean and travels freely before turning on the machine. A float that is stuck will cause the vacuum motor to suck in water, resulting in vac motor damage.

PUMP PRESSURE:
Make sure the cleaning tool is spraying when adjusting the pressure, otherwise the pressure reading will be inaccurate.



SOLUS-500R

05.20.2008

SOLUS-500R EXTRACTOR

PART LIST

120V

ITEM	PART No	DESCRIPTION
1	FP578	Switch, with cover
3	78B	Light, red
3A	78	Light, green
3B	41D	Light, amber
5	248	Knob, red
5A	FP544	Potentiometer, heat, w/wires & knob
6	249	Knob, blue
6A	FP543	Potentiometer, pump, w/wires & knob
7	2093	Switch plate
8	4404C	Mating bar
9	2105	Wheel, handle
10	1590	Rubber Handle Grip
10A	2106	Handle
11	FP478	Float, Assembly, electric
12	801D	Hinge pin, 7”
13	FP594	Tank, Vacuum
13A	VC-BLK	Cover, Vac Motors
14	2013A	Gasket, vacuum
15	408E	Vacuum motor, 120V
15A	1589	Screen, 1/8 S/S mesh
16	2086A	Lid & ring, vacuum
17	1074	Gasket, vacuum lid
18	FP436	Chain, 8”
19	907	Hose barb, 1-1/2”
20	1130	Strap, Velcro, 9”
21	1060C	Cap, drain hose
22	1518	Hose Clamp
23	1060B	Hose, drain
24	FP604	Tank, Holding
25	FP545	Lid and chain, Holding Tank
26	909A	Latch strike
27	1113	Hose barb/elbow, 90°, 1/2” hose
28	1115	Hose barb/Elbow, 90°, 3/8” hose
29	925	Hose, 3/8” ID X 29”
31	166	Hose clamp
32	925	Hose, 3/8” ID X 26”
33	946	Hose, 1/2” ID X 17”
34	207A	Filter, pump inlet
35	2094	Probe, temperature
36	See Miscellaneous **	
37	918	Heat Sink plate
38	FP361	Motor Speed Control PCB, pump
39	3000	Bracket, solenoid mounting
40	FP225	Vacuum Motor Control PCB
41	2014	Fan, 120V
42	2015	Guard, fan
43	2B1	Screw, 6-32 X 2-1/4”

ITEM	PART No.	DESCRIPTION
44	1057B	Power Cord, 12/3, 25 ft
45	1062	Receptacle, AC power in
46	1476	Strap, 17”
47	2095	Solenoid, 120V, recirculation
47A	1278A	Hose Assembly, heat recirculation, 20”
48	1424	Hose assembly, 1/4” ID X 19”
49	FP336	PCB mounting track, 4”
50	198	Hose Clamp
51	923B	Dual Cord Sensor PCB
52	948B	Motor, DC, for pump
53	FP537	Pump complete, no mtr
54	FP542	Hose assembly, pump to gauge
55	801E	Hinge pin, 4.5”
56	27A	Axle Cap
57	2092	Wheel, 12”
58	910-23.75	Axle rod
60	BUPE-BLK	Base, black
61	FP585	Castor Plate, black
62	905	Castor, 4”
63	2165	Gauge, Pump pressure
64	928	Louver, 3”, gray
65	908	Latch
66	45	Quick Disconnect, male. 1/4 p.t.
67	115	Washer, fiber
68	116A	Bushing, Teflon
69	92A	Nipple, 1/4 pt
70	168	“T” Brass
71	223	Quick Disconnect, male
72	FP540	Heat Exchanger, complete
73	455	Mount bracket, heater
74	945D	Unloader valve
75	FP547	Hose assembly, heater inlet
76	313	Hose, S/S, braided, heater outlet

NOT SHOWN & MISCELLANEOUS PARTS

**FP194E	Heat repair kit includes thermistor control, thermistor probe & cutout
950D	Cam/bearing, pump drive
950CP	Pump rebuild kit, valves and o-rings
250	Pump rebuild kit, piston and seals
FP538	Pump & motor complete, with unloader
FP619	Bag, pre-filter for vac inlet
SYP1	Priming hose assembly

TROUBLE SHOOTING:

IF THIS OCCURS	CHECK THIS
NO SPRAY	Solution tank is empty. Clogged spray tip. Pump not running or not primed. Valve on wand not operating.
PUMP DOES NOT RUN	Check the brushes in the pump motor. Replace if necessary. No power to pump. Test the Motor Speed Control Circuit Board and potentiometer.
PUMP WILL NOT PRIME	Make sure the Heat Recirculation Switch is turned off.
LOW SUCTION	Debris is plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum dome is not seated or is damaged.
NO SUCTION	No power to motor. Test the Electronic Float. Test the switch. Test the vacuum motor. Test the Vacuum Circuit Board.
LOW HEAT	Spraying too long. Try spraying for 12-15 seconds, or about three strokes. Heat exchanger needs to be flushed. Wrong tool being used. Too much water passing through. Longer hose or larger diameter hose, than standard.
NO HEAT	Heat is not turned on. Either the green light must be on or the bypass switch must be turned on. No power in the wall outlet - check to see if the breaker has tripped. No power to the bypass switch - check wiring for 'opens." No power out of bypass switch, follow troubleshooting steps to isolate the problem. Call your distributor for additional help.

SPECIFICATIONS:

Rotomolded Body:	Lifetime Warranty
Vacuum:	Two 5.7", 3-stage
VAC Shutoff:	Electronic
Pump:	Positive displacement, fully adjustable 0-500 psi
Waterlift:	100" -- 170 CFM
Heat:	Adjustable to 212º F
Heater:	2000 Watts
Wand:	Stainless steel, double bend, twin tip
Weight:	110 lbs.
Dimensions:	24W x 28L x 41H (inches)

SOLUS-500R
EXTRACTOR
120V

NOTES:

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