

SC5EX 5 Gallon Self Contained Extractor

Operator's Manual

Item #85503



INTRODUCTION

This manual will help you get the most from your Betco Extractor. Read it thoroughly before operating.

The Betco Extractor is intended for commercial use.

PARTS & SERVICE:

Contact your **BETCO AUTHORIZED DISTRIBUTOR** for repair parts or service. Please specify the **Model & Serial Number** when discussing your machine.

NAME PLATE:

The **Model & Serial Number** of your machine is located on the **Name Plate** on the frame assembly. This information is often needed when ordering repair parts for the machine.

IMPORTANT SAFETY INSTRUCTIONS / READ BEFORE USE.

When using an electrical appliance, basic precautions should always be followed, including the following:
Read all instructions before using.

! WARNING!

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

- * Do not leave the machine when it is plugged in. Unplug the unit from the outlet when not in use & before servicing.
- * To avoid electric shock, do not expose machine to rain. Store indoors.
- * 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.
- * Do not use with damaged cord or plug. If machine is not working as it should return it to a service center for inspection.
- * Do not pull or carry by cord, use cord as a handle, close a door on a cord, or pull cord around sharp edges or corners. Do not run machine 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 handle plug or machine with wet hands.
- * Do not put any foreign object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, & anything that may reduce airflow.
- * Keep hair, loose clothing, fingers, & all parts of body away from openings & moving parts.
- * Turn off all controls before unplugging.
- * Do not use in or around flammable or combustible liquids such as gasoline or use in areas where they may be present.
- * Connect to a properly grounded outlet only. See grounding instructions.

GROUNDING INSTRUCTIONS

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

! DANGER!

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 machine. If plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Replace the plug if the grounding pin is damaged or broken.

Extension cords connected to this machine should be 12 gauge, 3-wire cords with 3-prong plugs & outlets. DO NOT use extension cords more than 50 feet long.

PREPARING THE MACHINE FOR OPERATION

Before using your machine for the first time, please note the following information:

The SC5EX is designed to be used with the standard 115-120 Volt, 15-20 amp circuits. Check the plate on the rear of the machine to confirm the correct electrical rating.

Always use this machine with a grounded electrical outlet to avoid the potential of electric shock. For maximum protection, use a circuit that is protected by a ground fault circuit interrupter. In addition, this unit is designed for indoor use only. Do not operate outdoors. **DO NOT IMMERSE IN WATER, AS THIS WILL VOID YOUR WARRANTY.**

The SC5EX comes equipped with a 14/3 50-foot power cord, which is sufficient for most applications. If it becomes necessary to use an extension cord, it should be a three conductor grounded cord with a 12/3 minimum rating.

To avoid the possibility of electric shock or injury, always remove the power cord from the electrical outlet before attempting any regular maintenance or repairs.

To avoid damage to the power cord, which could lead to the possibility of electric shock, **NEVER** run the brush or the machine over the power cord. Always lift the power cord over the unit.

Never try to move the machine by pulling on the power cord or attached hoses or accessory hoses.

The SC5EX IS NOT DESIGNED FOR USE IN FLOOD CLEANUP. IT SHOULD NOT BE USED AS A SUBMERSIBLE PUMP OR IN PLACE OF A WET/DRY VACUUM. USE IN SUCH CONDITIONS COULD LEAD TO POSSIBLE ELECTRIC SHOCK AND SEVERE INJURY AND WILL VOID YOUR WARRANTY.

NEVER use this machine as a step or a piece of furniture.

Use appropriate care when lifting the machine into and out of vehicles.

NEVER use the SC5EX in areas where there is a volatile atmosphere, such as near flammable liquids, fuels solvents or grain dust, as this can lead to an explosion and possible injury.

Always maintain this machine regularly as is recommended in the section "MAINTENANCE".

If any questions arise concerning the use, maintenance or repair of the SC5EX, contact your distributor for information.

Filling the machine:

Release the clear plastic dome on the top of the recovery tank by moving the carrying handle forward; it is not necessary to remove the vacuum hoses from the dome.

Remove the recovery tank by first lifting the dome and then raising the front of the recovery tank and lifting it up and forward.

Fill the solution tank with hot water not exceeding 180°F. (82°C).

Add a low foam carpet extraction chemical according to the chemical manufacturer's recommended dilution ratio. **NOTE: If a high foam chemical is used, it is recommended that a defoamer be added to the recovery tank to prevent a buildup of foam. Excess foam can be drawn into the vacuum motor, WHICH WILL VOID THE WARRANTY.**

Replace the recovery tank and dome by reversing instructions '1b' and '1a', making sure that the dome is seated squarely on the top of the recovery tank to assure proper vacuum.

Re-attach the vacuum hoses, if these were disconnected previously.

Make sure the drain plug is in place at the rear of the recovery tank. Failure to do so will prevent the vacuum from working and solution from being recovered from the carpet.

Your SC5EX is now ready for use.

OPERATION

The SC5EX is designed to be used with a backward pulling motion. Position the nose of the machine at a convenient point along the carpet edge, or in a corner of the area to be cleaned.

Turn the pump by moving the pump switch to the **MANUAL** position. A momentary switch (**RED** push button) on the handle is then used to release solution through the spray jets. Please note that it may take a minute for the pump to pressurize the system. You can press the **RED** button until you hear a change in the pitch of the pump or until you hear the spray being released. At this point release the **RED** button.

Turn on the vacuum switch.

Turn on the brush switch. If you will be cleaning a deep pile carpet, we suggest that you tilt back slightly on the machine to raise the brush off the carpet before turning it on. In addition, if you must stop moving the machine for any period of time, turn off the brush motor and then start it again when you resume your cleaning.

Depress the RED button and draw the machine backwards in a straight line over the area you are cleaning. Release the RED button as you near the end of your path and continue to draw the machine backwards an additional 6 inches. This is necessary because the spray jets are located approximately 6 inches behind the vacuum shoe. Failure to do so would cause the solution to accumulate on the carpet surface.

Tilt the nose of the machine up and walk the machine forward to your beginning point. Position the machine to the left or right of your first pass so that there will be an overlap of approximately 2 inches. Repeat step "2F" and continue working until the entire area has been cleaned.

At your discretion, you may want to make a second pass if the carpet is exceptionally dirty. We recommend that this second pass be made at a right angle to the first.

If you desire, you can also make a second pass with just the vacuum and brush. This would be advantageous if working on a deep pile carpet to be sure that as much solution as possible is removed. This second pass should be at a right angle to the first cleaning pass.

The SC5EX can also be used to agitate any pre-spotter chemicals that may have been applied. Turn on only the brush switch and make several passes over the area treated.

Traffic lanes can also be pre-scrubbed with your standard solution by following Step 2f, but with the vacuum turned off. This will allow you to apply your cleaning solution, agitate the carpet, and provide additional contact time for the chemicals to work on the affected areas. The treated sections would then be extracted in the course of the normal cleaning procedure.

If long, straight areas such as hallways are to be cleaned, the pump switch can be moved to the Continuous position. This will bypass the momentary switch (RED button) and cause the solution to be dispensed through the spray jets continually. If you use this feature, remember to move the switch back to the middle 'OFF' position when you finish your pass and before you move the machine back to start the next pass or it will continue to dispense solution as you walk forward.

TO USE ACCESSORY TOOLS:

Turn off Brush, Vacuum and Pump (middle OFF position).

Attach one end of the Vacuum/Solution hose to the appropriate fitting on the tool.

Attach the other end of the Solution hose to the brass fitting at the rear of the machine.

Standing behind the machine, remove the LEFT vacuum hose (attached to the angled pipe) from its plastic fitting.

Attach the vacuum hose from the accessory to the plastic fitting on the Dome.

Turn on the pump by moving the Pump switch to the MANUAL position. DO NOT use continuous position. Placing the PUMP switch in the CONTINUOUS position will cause solution to be dispensed through both the fitting and the spray jets.

Turn on the Vacuum switch.

Use the tool in the normal manner.

EMPTYING THE MACHINE

Through the course of normal operation it will be necessary to empty the Recovery Tank to prevent dirty solution from being drawn into the Vacuum motor. Periodically check the level in the Recovery Tank. If it is near the top, dump out the dirty solution. Whenever clean solution is added to the machine the Recovery Tank should ALWAYS be checked, and drained if necessary.

FAILURE TO FOLLOW THIS PROCEDURE COULD RESULT IN DAMAGE TO YOUR VACUUM MOTOR, WHICH MAY VOID YOUR WARRANTY.

Turn off Vacuum motor.

Unlock the carrying handle and lift the clear plastic dome. Carefully lift Recovery Tank from the machine and empty dirty solution.

Be sure to seat the clear plastic dome properly on the top of the Recovery Tank and that both vacuum hoses are properly attached before returning the unit to use, or the vacuum will not work.

CLEAN-UP AND STORAGE

Remove and drain the Recovery Tank of dirty solution.

Remove the Drain Plug and flush the excess solution, dirt grit and foreign objects from the Recovery Tank. Be careful to prevent larger objects from clogging your drainage pipes.

Remove the Foam Filter from the vacuum Air Intake Port (straight pipe), wash in warm water, squeeze dry and replace.

Flush the clear plastic Dome with water to remove any lint. You may wish to remove and rinse the rubber gasket occasionally.

Inspect the Solution Intake Port (angled pipe) and rinse with clear water. If there is an accumulation of lint, you can scrub it with a small bottlebrush or a cleaning rag.

Attach the short section of Pressure Hose provided with unit to the Brass Fitting at the rear of the machine. Turn the Pump Switch to MANUAL and pump out any excess cleaning solution. Do not remove the hose yet.

Pour 1 to 3 gallons of clean water into the Solution Tank and flush out the pump and internal solution hoses. Leave some water in the Solution Tank.

Moving the front of the SC5EX to an appropriate area, allow a portion of the clean water to be ejected through the spray jets to clean them also.

Any remaining solution can be dispensed as in Step 6.

Inspect the Brush and Vacuum shoe. Remove any lint, strings or debris that may be present.

The machine is now ready for transport or storage. NOTE: If the SC5EX will be stored for several weeks, you should wipe the Solution Tank, Recovery Tank and Dome dry to avoid the build up of any musty odors.

NOTE: It is important to protect this machine from freezing, as this could damage the pump, solenoid valve, pressure hoses and brass fitting. As a general rule, the machine should not be left where it can be exposed to temperatures of 40 degrees F. or lower without first draining any water or cleaning chemicals from the solution tank. Then add 1 gallon of a methylhydrate window washing solution to the Solution Tank. (DO NOT USE AN ETHYLENE GLYCOL ANTI-FREEZE SUCH AS DESIGNED FOR AUTOMOTIVE COOLING SYSTEMS AS THIS MAY DAMAGE THE PUMP AND VOID YOUR WARRANTY.) Turn on the pump and flush through the spray jets. Attach the short section of solution hose and allow the solution to circulate through the accessory fitting. Drain excess solution from the machine; allow it to warm to room temperature. Flush the system with clear warm water. The SC5EX is now ready for use.

MAINTENANCE

In addition to the regular care that is outlined in the section "Clean up and Storage", the following regular maintenance procedures will ensure trouble free operation of your unit.

Depending upon the frequency of use, the Pump/Spray system of your machine should be cleaned with a solution of 2 gallons of water and 1 quart of white vinegar, or an anti-browning solution mixed according to manufacturer's instructions. This will prevent a buildup of alkaline deposits in the Pump and the Spray Jets.

Make sure that all excess cleaning solution has been drained from the solution tank.

Add water/vinegar or anti-browning solution.

Attach the short section of solution hose and turn the Pump Switch to MANUAL.

Allow the water/vinegar or anti-browning solution to circulate through the pump and solution hose back into the Solution Tank.

Turn off the pump and remove the short section of solution hose.

Turn the Pump Switch to MANUAL and depress the Momentary Switch (RED BUTTON) to flush the solution through the spray jets. Make sure the machine is in an appropriate location for this part of the operation. As soon as it is apparent that the solution is being sprayed out of the jets, turn off the pump and allow the unit to sit for approximately 5 minutes to allow the chemicals to dissolve any alkaline residues.

Empty about 1/2 of the solution through the Spray Jets, and the balance through the short section of solution hose.

Rinse the system with one gallon of clear water, repeating the procedure outlined in Step '1h'. NOTE: If your SC5EX is used on a daily basis, or several times each week, you should follow the above procedure every 2 to 4 weeks. If the unit is used once per month or less, you should follow the above procedure at least every 6 months.

At least once a month inspect all vacuum hoses, filters and electrical cords for cracking or fraying. Defective hoses should be repaired or replaced. Defective filters should be replaced. Defective electrical cords should be replaced before the machine is next used to avoid the possibility of injury due to electrical shock, and to avoid the potential of shorting the electrical system, which could cause a fire.

At least once a month, inspect the brush and brush drive belt. Remove any lint or strings that may be lodged in the brush bristle. Check the brush drive belt for cracks and proper tension. If any cracks are found, replace the belt. If the belt slips when the brush is turned by hand, loosen the motor mounting screws, tension the belt and tighten the mounting screws. Removing the cover on the RIGHT side of the Power Head can easily access the belt and motor mounting screws.

At least every 3 months, inspect the spray jets to be sure that they are not clogged. This can be done at the time of your regular cleaning and before storage. If the solution continues to drip for more than a few minutes after the pump has been turned off, it may indicate that the jets are clogged. Remove them and clean any material that is blocking them. If there appears to be an accumulation of alkaline deposits, soak the tip in a water/vinegar solution for about 15 minutes to dissolve the residue, rinse and replace. Stubborn deposits can be scrubbed with a "toothbrush" style cleaning brush filled with nylon or brass bristles. NOTE: Do not use brushes with stainless steel bristles, or pins, wires or other such items to unclog the tip, as this could distort the spray pattern.

After each use, wipe down the outside of the machine to prevent the buildup of water spots and/or alkaline deposits.

TROUBLESHOOTING

Though your SC5EX has been engineered and manufactured to rigorous standards to make it as trouble free as possible, difficulties will sometimes arise. The user can correct many of these. Listed below are some of the more common situations, along with suggested solutions:

Unit does not operate:

- Be sure that the unit is plugged in to the wall outlet.
- Make sure building circuit breaker has not been tripped
- Power cord is defective; check for possible damage and replace (Refer to repair manual)
- Brush does not rotate; Brush not turned on or rotates slowly
- Make sure that the circuit breaker has not opened; Reset if necessary
- Check for foreign objects that may be lodged against brush; Remove and make sure brush turns freely.
- Brush bearings are bad. Replace. Refer to manual.
- Brush switch defective; replace defective switch. Refer to manual.

Brush motor runs but brush does not rotate

- Check the drive belt; replace if broken
- Drive belt tension too loose; Remove access cover, loosen motor mounting screws and re-tension belt.

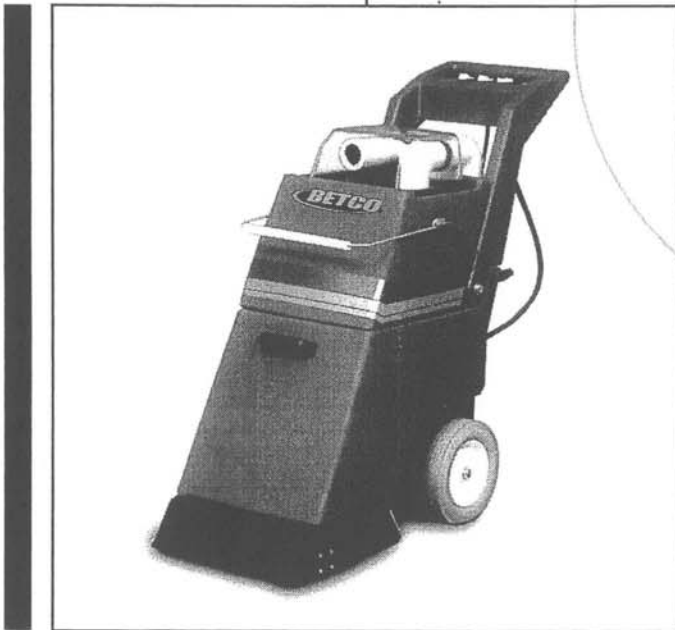
Unit does not pick up solution

- Vacuum not turned on.
- Vacuum hose(s) not attached.
- Clear plastic dome not properly seated on the top of the Recovery Tank, loosen handle, re-seat dome and lock down handle.
- Dome Gasket cracked, broken, or missing; replace Gasket.
- Vacuum hose(s) cracked; replace defective hose(s)
- Vacuum switch is defective; replace defective switch
- Vacuum motor not working; replace motor.
- No solution being applied through Spray Jets or accessory tool
- Pump not turned on
- Pump Switch is defective; replace defective switch.
- Spray Jets are clogged; remove and clean. Refer to #5 under "maintenance"
- Solenoid valve defective, or clogged use short section of solution hose at brass fitting to check pump; if solution is dispensed, Solenoid valve is clogged or defective
- Solution flows through spray jets but not through accessory tool; check to be sure valve on tool is working properly; check brass fittings to be sure that they are not defective. Replace defective fittings or valve.

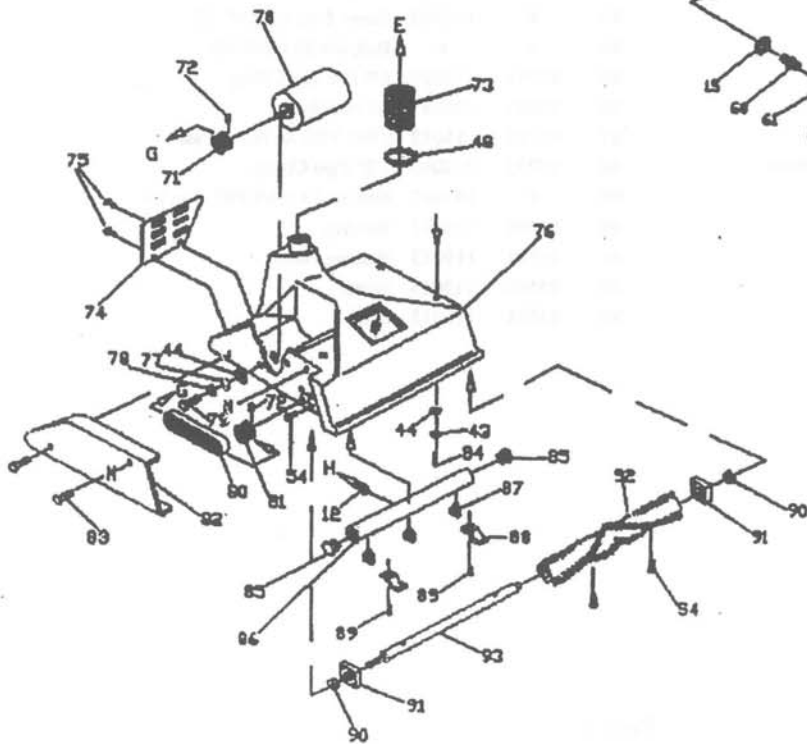
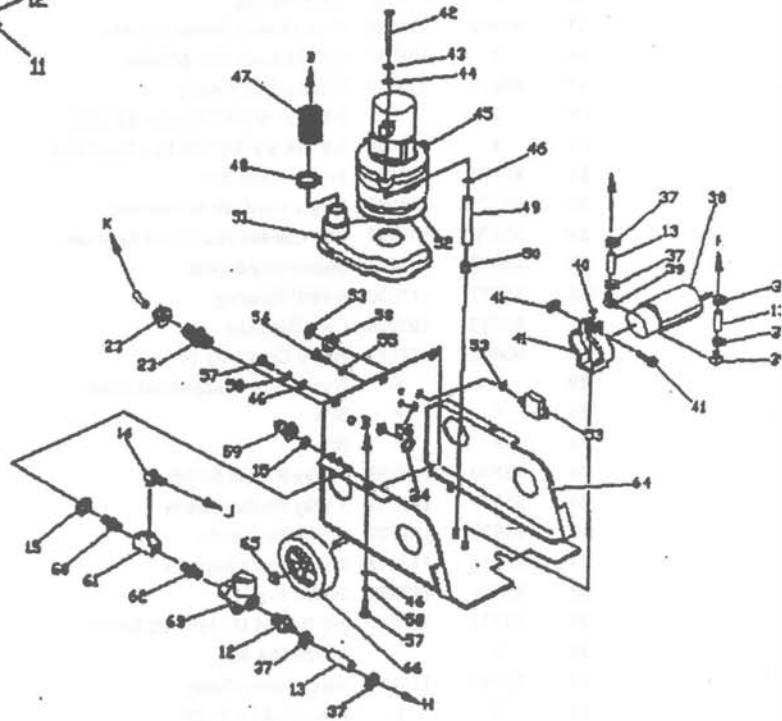
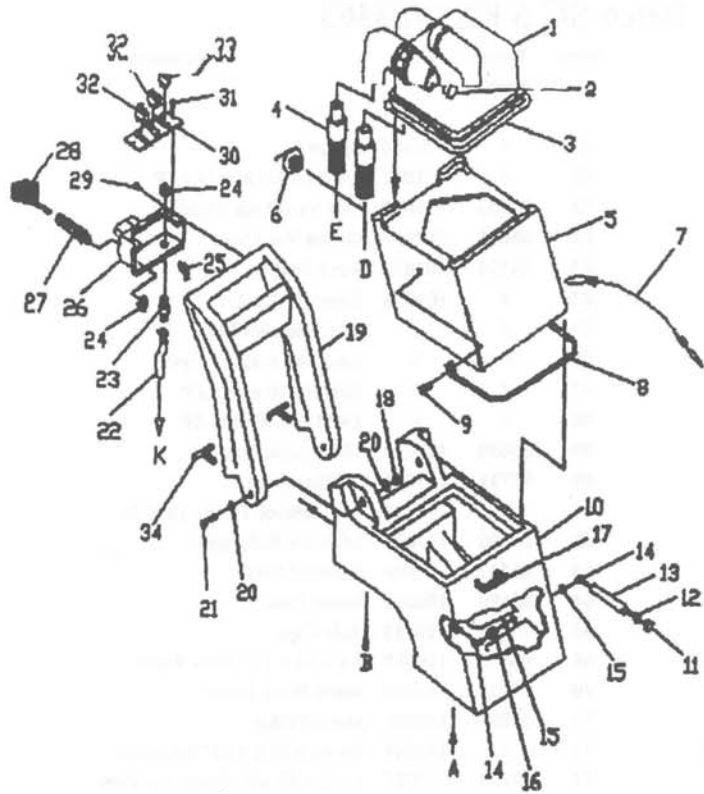
SC5EX 5 Gallon Self Contained Extractor

Parts Schematic

Item #85503



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Betco SC 5 EX #85503

Item	Betco Part#	Code	Description	Item	Betco Part#	Code	Description
1	85615	440004	Dome Assembly	49	#	130066	Spacer
2	85633	114033	Foam Filter	50	#	101081	1/4-20 x 7/8 Rod Nut ZP
3	85616	257009	Dome Gasket	51	85543	118010	Tall Vac Motor Manifold
4	85778	105022	Black Hose Cuff	52	85545	112017	Gasket Vac Motor
5	85672	106536	Vacuum Tank	53	85574	103033	Reset Switch
6	85674	440053	Drain Plug	54	#	101038	Screw 8-32 x 3/4" ZP
7	85768	103099	Cable Assembly	55	#	#	#8 Beauty Washer
8	85670	114038	Vacuum Tank Handle	56	#	#	Lock Nut 8-32 ZP Nylon
9	#	#	Bolt 1/4-20 x 3/4" ZP	57	#	#	Bolt 1/4-20 x 1/2" ZP
10	85676	106537	Solution Tank	58	#	#	1/4" Lock Washer ZP
11	85636	114024	Solution Strainer	59	85638	115034	Male Quick Connect
12	85735	115024	3/8 x 1/4 Male Adapter	60	85731	115010	1/4 Hex Nipple
13	85772	105014	3/8" Solution Hose 31"	61	#	115013	1/4 Barstock Tee for Dual Jet
14	85795	115023	3/8" B x 3/8" MPT Nylon 90 Elb	62	85796	115028	3/8 x 1/4 Red Nipple
15	#	#	9/16" SS Flat Washer	63	85581	117006	Solenoid Valve
16	#	115011	1/4" Coupling	64	85680	130005	Motor Plate
17	85769	113016	Front Handle Mount 105-M6	65	85783	116013	Axle Caps
18	#	101087	3/8"-16 Lock Nut Z/Nylon	66	85675	116012	8 x 1.75 x 1/2" Grey Wheel
19	85677	113515	Folding Pull Handle	70	85535	104010	Small Brush Motor
20	#	#	3/8" Flat WRGT Washer ZP USS	71	85596	118005	Motor Pulley
21	#	101026	3/8"-16 x 3-1/2" ZP Hex Head Bolt	72	#	101041	Screw 8-32 x 3/16" Set Screw
22	85774	103072	Trailer Cable 35"	73	85794	105025	1-1/2 x 29-1/2" Black Vac Hose
23	85775	103083	Larger Cord Strain Restraint	74	85681	114036	Motor Cover
24	85776	103027	1/2" Conduit Nut / Cord Restraint	75	#	#	Screw 8-32 x 3/8" ZP
25	85572	103031	Momentary Switch	76	85682	130074	Head Casting
26	85777	112520	Switch Housing	77	#	#	#10 Flat Washer SS
27	85563	103026	Cord Restraint	78	#	#	#10 Lock Washer ZP
28	86662	103043	Power Cord 14/3 30'	79	#	#	Screw 10-32 x 1" ZP
29	#	#	Bolt #8-3/4 Phillips Oval Head	80	85594	112013	Belt
30	#	#	N/A	81	85595	119010	Brush Pulley
31	#	#	N/A	82	85683	130097	Belt Cover
32	85570	103038	2 Way Rocker Switch	83	#	101040	Screw 8-32 x 1-3/4" ZP
33	85571	103039	3 Way Rocker Switch	84	#	#	Bolt 1/4-20 x 3/4" SS
34	85678	101127	T-Bolt for Handle	85	85791	115027	3/8 Hex Head Plug
37	85730	113012	Small Hose Clamp #4	86	85684	130037	Jet Manifold
38	85551	117022	50 PSI Pump	87	85715	115032	9503 VEE Jet Noz. Brass
39	85771	115047	3/8 Barbed 1/4 MPT 90 Elbow	88	85792	113006	1/2" Pipe Clamp
40	#	#	1.4-20 Nut SS	89	#	101045	Bolt 10-24 x 3/8 PHL Pan SS
41	85797	113008	Large Pump Clamp	90	85592	119011	Bearing
42	#	#	Bolt 1/4-20 x 3" ZP	91	85593	119013	Bearing Block
43	#	#	1/4" Lock Washer SS	92	85590	119014	Brush
44	#	#	1/4" Flat Washer SS	93	85591	119015	Shaft
45	85539	104002	Vacuum Motor 2 Stage				
46	#	#	1/4" Flat Washer ZP				
47	85679	105024	1-1/2" x 24" Vac Hose				
48	85781	113010	Large Hose Clamp #28				