

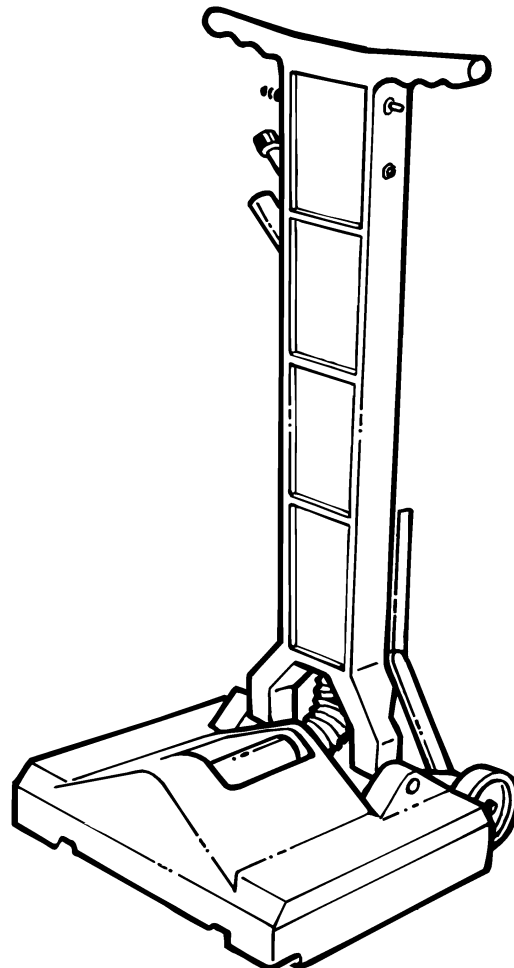
# Castex®

## PB-1600

Brush Attachment For Carpet Extractors

**MODEL:  
607421**

**Operator and Parts Manual**



**CASTEX INCORPORATED**  
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**608054**  
**Rev. 00 (07-99)**

# OPERATION

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This manual is furnished with each new model. It provides necessary operation and machine maintenance instructions and an illustrated parts list.

**Read this manual completely and understand the machine before operating or servicing it.**

When ordering replacement parts, use the Parts Lists in this manual. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. Parts and supplies may be ordered by phone or mail from any Authorized Service Center or Distributor.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly - per the machine maintenance instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.

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## MACHINE DATA

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Please fill out at time of installation for future reference.

Model No.- \_\_\_\_\_ Install. Date -    /    /

Serial No.- \_\_\_\_\_

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## SAFETY PRECAUTIONS

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This machine attachment is intended for commercial use. It is suited for carpet extractors of 150psi solution pressure or less. It is used to clean carpets in an indoor environment and is not constructed for any other use.

The following safety alert symbols are used throughout this manual as indicated in their description.

**⚠ WARNING: To warn of hazards or unsafe practices which could result in severe personal injury or death.**

**FOR SAFETY: To identify actions which must be followed for safe operation of equipment.**

The following information signals potentially dangerous conditions to the operator or equipment:

### FOR SAFETY:

1. **Do not operate machine:**
  - Unless trained and authorized.
  - Unless operator manual is read and understood.
  - In flammable or explosive areas unless designed for use in those areas.
  - Unless cord is properly grounded.
  - With damaged cord or plug.
  - If not in proper operating condition.
  - In outdoor areas.
  - In standing water.
2. **Before operating machine:**
  - Make sure all safety devices are in place and operate properly.
3. **When using machine:**
  - Do not run machine over cord.
  - Do not pull machine by plug or cord.
  - Do not pull cord around sharp edges or corners.
  - Do not unplug by pulling on cord.
  - Do not stretch cord.
  - Do not handle plug with wet hands.
  - Keep cord away from heated surfaces.
  - Report machine damage or faulty operation immediately.
4. **Before leaving or servicing machine:**
  - Turn off machine.
  - Unplug cord from wall outlet.

### 5. When servicing machine:

- Unplug cord from wall outlet.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves.
- Use manufacturer supplied or approved replacement parts.

**⚠ WARNING: Hazardous Voltage. Shock or electrocution can result. Always unplug machine before servicing.**

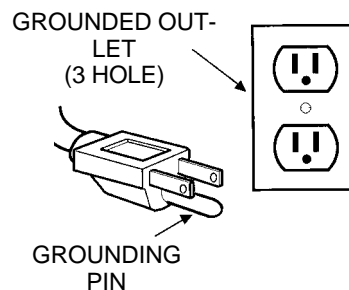
**⚠ WARNING: Flammable materials can cause an explosion or fire. Do not use flammable materials in tank(s).**

**⚠ WARNING: Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.**

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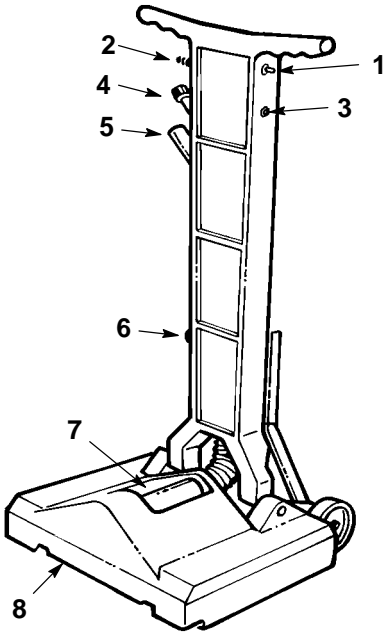
## GROUNDING INSTRUCTIONS

Machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use.



# OPERATION

## MACHINE COMPONENTS



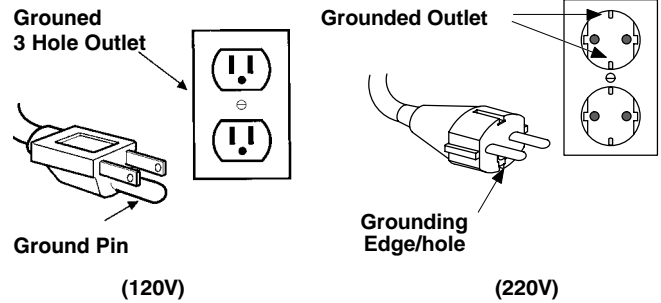
1. Spray Switch
2. ON/OFF Switch
3. Circuit Breaker
4. Solution Hose Connection
5. Vacuum Hose Connection
6. Handle Adjustment Knob
7. Clear Intake Tube
8. Power Brush Head

## MACHINE SETUP

1. Carefully check carton for signs of damage. Report damages at once to carrier.
2. The machine is shipped fully assembled and is ready for operation.
3. Prepare carpet extractor for use. See extractor's manual for setup instructions.
4. Connect vacuum and solution hoses to carpet extractor and to brush attachment.

**ATTENTION: This brush attachment is intended for carpet extractors of 150 psi of solution pressure or less. Damage due to the excess of 150 psi is not covered by the warranty.**

5. Plug power cord to grounded wall outlet (shown below) or for twist plug models plug cord directly into a low pressure canister extractor.



**FOR SAFETY: Do not use machine unless cord is properly grounded.**

6. Loosen black knob at bottom of handle and lower handle to a comfortable operating position. Tighten knob to lock handle in place.

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## MACHINE OPERATION

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**FOR SAFETY: Do not operate machine unless operator manual is read and understood.**

1. Turn on the carpet extractor according to it's operating manual instructions.
2. Move the SPRAY switch to the upward position, then squeeze the ON/OFF switch to start spray and brush.
3. To begin cleaning: Pull the brush accessory backwards slowing and slightly lift up on the handle to apply brush pressure to the floor.

**⚠ WARNING: Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.**

**NOTE:** *If a spot does not come clean after first pass, move the SPRAY switch to the downward position. This stops the spray and allows you to scrub the spot using only the brush.*

4. When finished cleaning, turn off the extractor, then squeeze the ON/OFF switch on the brush accessory to relieve pressure in the solution hose.
5. Disconnect hoses and wrap the power cord around the handle and cord wrap.

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### Brush Circuit Breaker

The machine is equipped with a brush circuit breaker. Circuit Breaker will trip under conditions of excessive brush overload. Periodically check brush for entangled carpet strands and debris. If circuit breaker should trip. Remove obstruction and reset circuit breaker switch by pushing button located on side of handle. Resume to normal operation.

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## MACHINE MAINTENANCE

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**FOR SAFETY: Before leaving or servicing machine, turn off machine and unplug cord from wall outlet.**

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### Plumbing System

Each week of operation, flush out plumbing system with an acetic acid solution. This will prevent the plumbing system from clogging up with an alkaline buildup. Follow instructions below:

Mix 473ml (2 cups) of acetic acid solution with 7.6L (2 gal) of host water, 60° C (140° F) max., in the extractor's solution tank. Hold a bucket under brush attachment spray tips and spray solution for several seconds. Allow solution to sit in machine for 12 hours. Next, flush out machine with clean water before using again.

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### Power Cord

Always wind power cord around handle and cord wrap rather than loosely looped over handle. Should power cord become worn, replace immediately.

Inspect cord strain relief regularly to ensure that it is not pulling out of housing.

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### Brush and Belt

Inspect regularly for entangled carpet strands and debris.

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### Pick-Up Head

Inspect pick up head intake for lodged debris. Use a coat hanger to remove debris.

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### Vacuum Hose

Inspect Vacuum hose regularly for holes, loose cuffs or clogged debris.

# OPERATION

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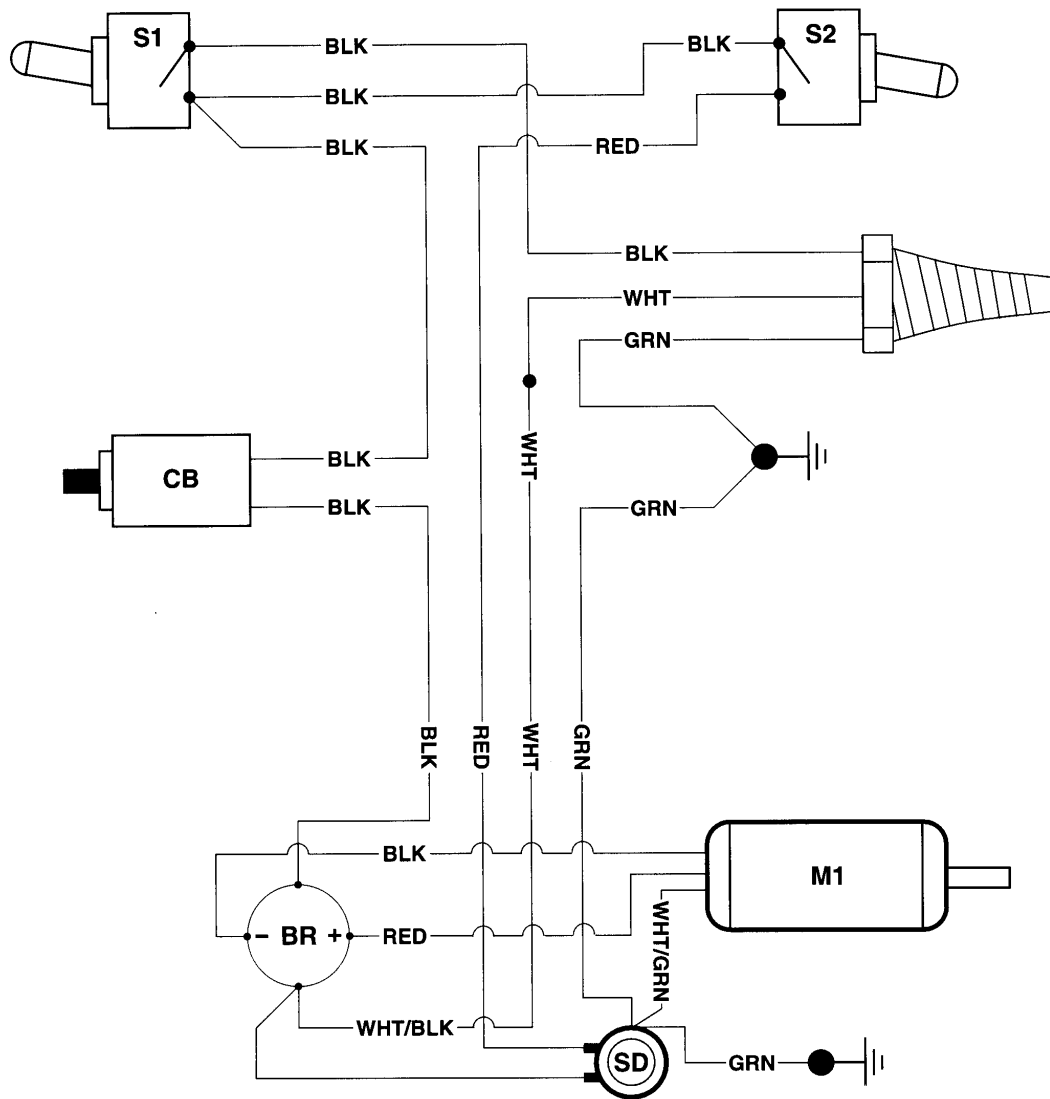
## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
No spray.	SPRAY switch is positioned downward.	Position SPRAY switch upward.
	ON/OFF switch not squeezed.	Squeeze ON/OFF switch.
	Clogged spray tips.	Clean spray tips with an acetic acid solution. See Machine Maintenance.
	Clogged or faulty solenoid.	Contact Service Center.
	Extractor's pump is faulty	Contact Service Center.
	Faulty wiring.	Contact Service Center.
Brush does not spin.	Brush clogged, which tripped brush circuit breaker.	Unplug power cord and remove entangled carpet strands and debris then reset circuit breaker.
	ON/OFF switch not squeezed.	Squeeze ON/OFF switch.
	Brush or motor pulley loose.	Tighten set screws on both pulleys.
	Faulty brush motor.	Contact Service Center.
	Faulty wiring.	Contact Service Center.
	Building circuit breaker has tripped.	Reset circuit breaker.

## SPECIFICATIONS

<b>MODEL NO.</b>	<b>PB-1600</b>
LENGTH	460 mm (18 in)
WIDTH	410 mm (16 in)
HEIGHT	1120 mm (44 in)
WEIGHT	17Kg (38 lbs)
BRUSH MOTOR	120V, .1 hp, 1A, 120W
BRUSH SPEED	1200 R.P.M.
POWER CORD LENGTH	7.5m (25 ft) Gauge-18-3
CLEANING PATH	406 mm (16 in)
MAXIMUM SOLUTION PRESSURE	10.3 BAR / 150 P.S.I.

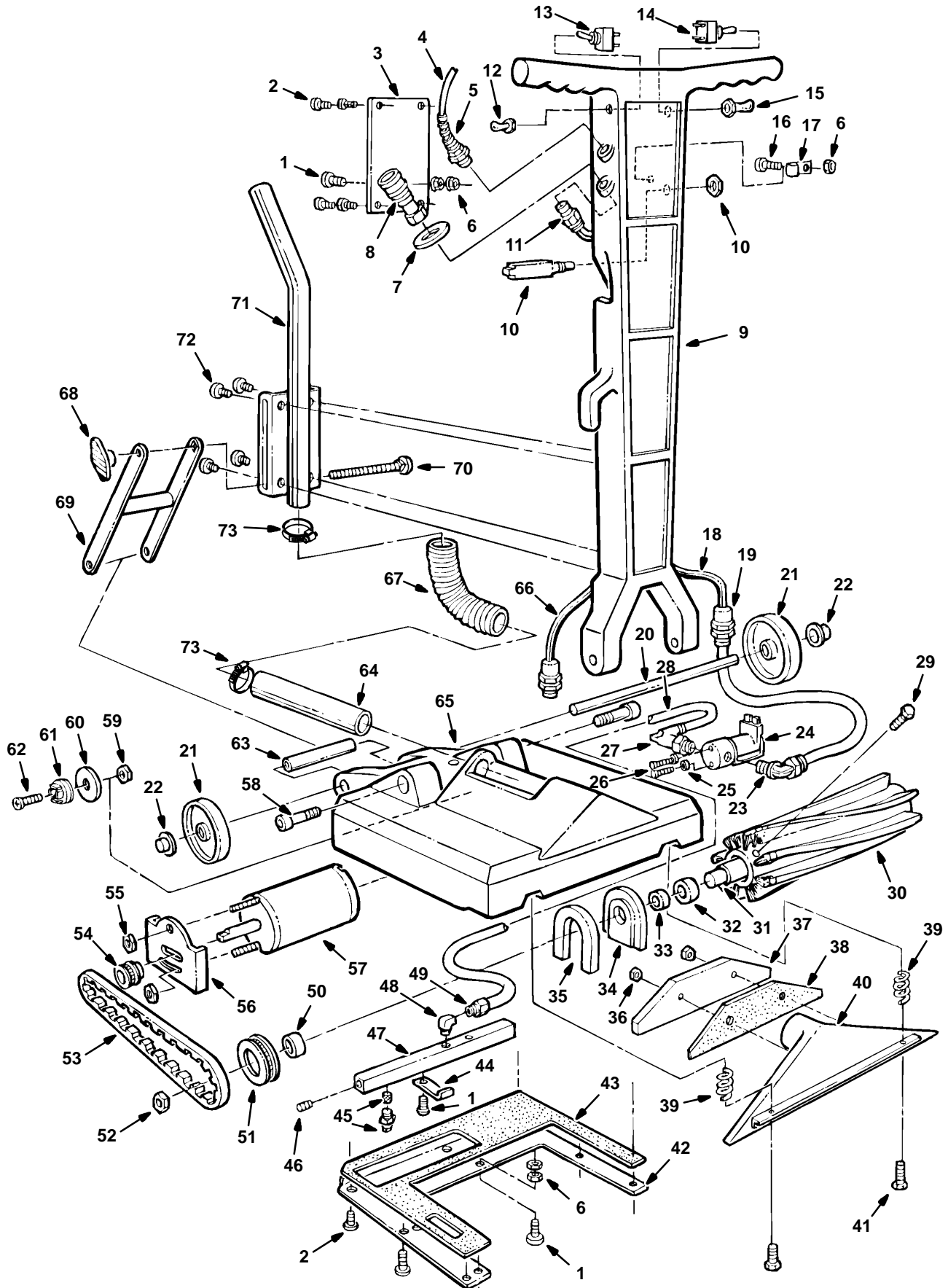
# ELECTRICAL DIAGRAM



## REF LEGEND

- BLK = Black
- WHT = White
- RED = Red
- GRN = Green
- S1 = Switch, ON/OFF
- S2 = Switch, Spray
- CB = Circuit Breaker
- M1 = Motor, Brush
- BR = Bridge Rectifier
- SD = Solenoid

# PARTS LIST



# PARTS LIST

REF	PART #	DESCRIPTION	QTY	REF	PART #	DESCRIPTION	QTY
1.	140890	SCREW, 10-24x1/2"	3	43.	100006	GASKET, BASE PLATE	1
2.	140887	SCREW, 10-24 x 3/8	14	44.	230605	BRACKET, MANIFOLD	1
3.	230304.BK	PLATE, COVER	1	45.	201004	NOZZLE, #8003	4
4.	130212	CORD, 18/3 x 25 FT. 120V	1	46.	150208	PLUG, 1/8	3
	130271	CORD, 25 FT. 220V	1	47.	230267	MANIFOLD, 16" SPRAYBAR	1
	130504	PLUG, TWIST LOCK (NOT SHOWN)	1	48.	150407	ELBOW, ST. 90° 1/8	1
5.	130137	GRIP, CORD	1	49.	150022	ADAPTER, 1/4"	1
6.	140519	NUT, 10-24	5	50.	230363	SPACER, BRUSH PULLY	1
7.	140034	WASHER, FLAT 1/2"	1	51.	230505	PULLEY, BRUSH	1
8.	150913	COUPLER, QUICK	1	52.	140548	NUT, JAM 5/16	1
9.	608037	HANDLE, BLUE	1	53.	230507	BELT, BRUSH DRIVE	1
10.	578337000	BREAKER, CIRCUIT 1.5A	1	54.	230506	PULLEY, MOTOR	1
11.	150024	CONNECTOR, 1/4"X3/8"	1	55.	140518	NUT, KEP 10-32-S/S	2
12.	130990	BOOT, RUBBER	1	56.	230366	PLATE, MOTOR MOUNT	1
13.	130728	SWITCH, SPRAY	1	57.	130471	MOTOR, BRUSH 120 VOLT	1
14.	130751	SWITCH, ON/OFF	1		190150	BRUSH CARD REPLMT	1
15.	130753	BOOT, SWITCH	1		130472	MOTOR, BRUSH 220 VOLT	1
16.	140848	SCREW, 10-24x1/2"	1		190154	BRUSH CARD REPLMT	1
17.	140324	CLAMP, 5/16"	1	58.	140564	BOLT, SHOULDER 3/8 x 3/4	2
18.	160473	TUBING, 3/8" X55"	4.5FT.	59.	140539	NUT, KEPS 6/32	1
19.	130181	GRIP, CORD	2	60.	140041	WASHER, FENDER	1
20.	230609	AXLE, WHEEL	1	61.	130304	RECTIFIER	1
21.	103007	WHEEL	2	62.	140831	SCREW, 6-32X5/8	1
22.	103029	CAP, HUB	2	63.	140601	SPACER, AXLE	1
23.	150421	ELBOW, 90° 1/4"X3/8"	1	64.	240179	TUBE, CLEAR VACUUM	1
24.	210033	VALVE, SOLENOID 120V 60 HZ	1	65.	101348	BASE, BLUE	1
25.	140023	WASHER, INT. LOCK #8	2	66.	130668	ASM., CORD16/4X55"	1
26.	140801	SCREW, 8-32x3/8	2	67.	160615	HOSE, VACUUM 1-1/2X.5ft.	1
27.	150414	ELBOW, ST. 90° 1/4	1	68.	240194	KNOB, PLASTIC T-BAR	1
28.	160468	TUBING, 1/4"x.916	1	69.	230607	LINK , ARM	1
29.	140554	SCREW, 1/4-20x3/4	4	70.	140209	BOLT, CARRIAGE 5/16-18X4-1/2	1
30.	240004	BRUSH, CYLINDER 16"	1	71.	230606.BK	TUBE, VACUUM HOSE ATTCHMNT	1
31.	230257	SHAFT, BRUSH 16"	1	72.	140885	SCREW, 1/4-20X1/2	4
32.	100049	SEAL, BRUSH BEARING	2	73.	140307	CLAMP, HOSE	2
33.	140125	BEARING, BRUSH	2	<b>DECALS (NOT SHOWN)</b>			
34.	230261	BLOCK, BEARING	2	120513	DECAL, OPERATING INST.	1	
35.	100005	GASKET, BEARING BLOCK	1	120619	DECAL, "WARNING.."	1	
36.	140546	NUT, LOCK 5/16-18	2	120846	DECAL, "LOW PRESURE.."	1	
37.	230610.BK	WEIGHT, VACUUM HEAD	1	608055	DECAL, "PB-1600"	1	
38.	100144	GASKET, WEIGHT	1				
39.	140419	SPRING	2				
40.	230608	TOOL, PICKUP HEAD	1				
41.	140221	SCREW, 5/16-18x1-1/4"	2				
42.	100734.BK	PLATE, BRUSH	1				