

NOBLES®

Speedshine 2400P

ULTRA-SPEED DUST CONTROL BURNISHER

MODEL: SPR2400P

Operator Manual
& Parts List



PDF Version of manual by:
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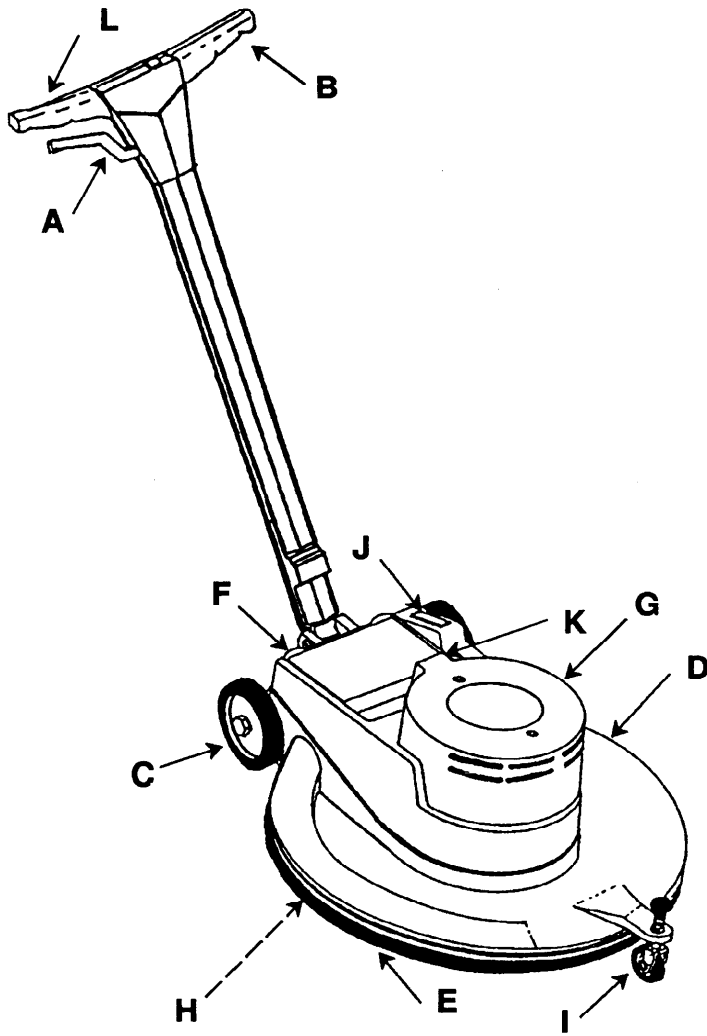
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173289
Rev. 02 (07-95)

Specifications



2400P Features

- A. Hand lever locks handle in upright position for transport or storage.
- B. Fingertip switch operation and nonconductive design make it simple and safe to use.
- C. 6" structural foam wheels with non-marking, durable tread roll on ball bearings. Offset wheel design allows easy transport up and down stairs.
- D. Low profile base casting cleans under obstacles as low as 3 1/2".
- E. Self-adjusting skirt reduces noise level while assisting dust recovery system.
- F. Unique vacuumized dust control collects dust and debris in cloth or disposable paper bags.
- G. High performance, direct-drive motor has no belts or pulleys to maintain or adjust.
- H. Flexible pad driver provides even gloss on uneven floor surfaces.
- I. Adjustable Caster provides the right pad pressure for optimum results.
- J. Pad performance meter shows safe performance range; helps reduce circuit breaker tripping.
- K. Indicator light alerts operator when to change carbon brushes in motor.
- L. Circuit breaker for pad motor.

SPECIFICATIONS 2400P

Motor	Direct drive 1 1/2 H.P. rectified DC, circuit breaker protected
Pad Size	20"
Pad R.P.M.	2400
Weight on Pad	Adjustable (0 to 10 lbs.)
Powercord	75 ft., #14 AWG
Net Weight	73 lbs.

Important Safety Instructions

All operators must read, understand and practice the following safety instructions. They will be repeated occasionally throughout this manual, and additional cautions may be added for specific cases.

⚠ CAUTION: Operators must read and understand this manual completely before operating or maintaining this equipment.

⚠ CAUTION: Loose objects on the floor can become dangerous projectiles if struck by the high-speed pad. Remove them before operating this machine.

⚠ CAUTION: Keep hands and feet away from revolving pad.

⚠ CAUTION: Keep machine moving to prevent damage to finish or floor.

⚠ CAUTION: Do not operate machine in areas where flammable liquids or gases are present.

⚠ CAUTION: Make sure all caution, warning, and instructional decals are in place and legible. Replace damaged or missing labels.

⚠ CAUTION: Maintenance and repairs must be performed by authorized personnel.

⚠ CAUTION: To avoid electrical shock, do not expose to rain – store indoors.

⚠ CAUTION: Disconnect power before performing any maintenance or service.

⚠ CAUTION: Use of extension cords is not recommended due to high amp draw requirements of this equipment.

⚠ CAUTION: Do not operate machine with pad performance meter needle in RED zone, as circuit breaker may trip or floor damage could occur.

⚠ CAUTION: Do not operate machine if brush wear indicator lights. Contact your authorized service center for motor brush replacement. **FAILURE TO REPLACE THE BRUSHES COULD CAUSE MOTOR DAMAGE AND VOID THE WARRANTY.**

Operating Instructions

NOTE: The numbered pictures (called out as "Figures") correspond to the number paragraph preceding it.

1. RECEIPT OF MACHINE

Carefully check carton and machine for signs of damage, and if damaged, **contact the Customer Service Department immediately.**

2. PREPARING FOR OPERATION

Check machine data plate on back of handle grips to make sure it matches the power available where the machine is to be used. We recommend a three-wire, grounded circuit with a 20 amp time delay fuse or circuit breaker for best, and most trouble free operation.

3. INSTALLING OPERATING HANDLE

The machine is shipped with handle removed. Remove the bolts and hardware from the lower handle base, and slide the handle vertically into the mount in the base casting, so the release pin fits into the seat. Install the handle bolts with washers and tighten securely with a 13MM wrench. See Fig. 3.

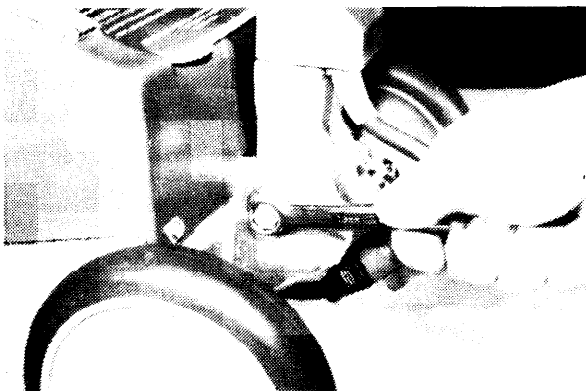


Fig 3

4. Connect the male and female powercords behind the handle.

4. Adjust the handle rest stop bolt to the most comfortable position during use for the operator. See Fig. 5.

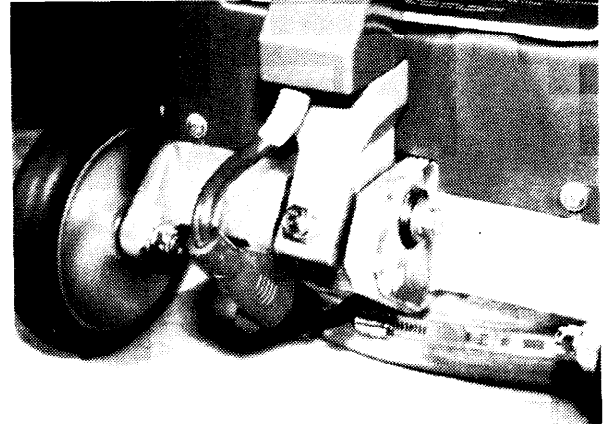


Fig. 5

6. MOUNTING THE PAD

The 2400P burnishers have a special safety interlock system which prevents the machine from being turned on in either the vertical handle position or the tipped-back (storage, pad installation) position. However, for maximum safety, we recommend the machine be unplugged from the circuit before mounting the pad.

With the handle in the vertical (locked) position, tip the machine back on the handle. Remove the plastic centerlock by turning counter-clockwise. Install the pad (minimum thickness 1/2"-maximum 1 1/8") accurately centered on the pad holder. Install the pad gripper ring with the points FACING the pad, and screw in the centerlock by turning clockwise.

IMPORTANT! THE PAD GRIPPER RING (ITEM B, FIG. 6) MUST BE INSTALLED AS SHOWN TO PREVENT PAD "STRETCH" WHICH MAY HAPPEN AT VERY HIGH R.P.M.

IMPORTANT! Select a pad that provides the best burnishing performance with the least amp draw. Because of the high pad speed, it is imperative the pad be of uniform thickness and designed for burnishing.

7. DUST CONTROL SYSTEM

The 2400P is equipped with a vacuumized pad system which deposits dust created by burnishing into a filter bag.

BEFORE EACH USE: Lift the access door and install the selected cloth (572048000) or paper (572049000) bag on the inlet pipe (See Fig. 7A).

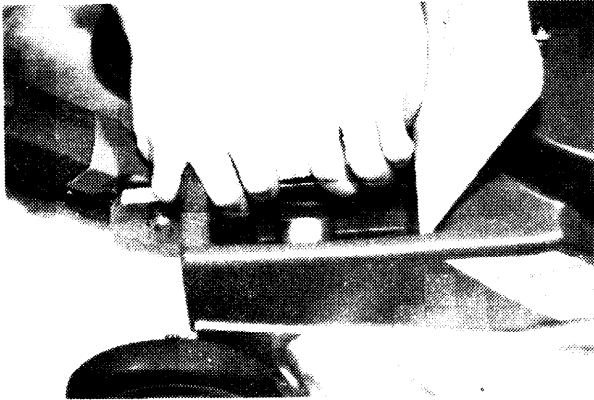


Fig. 7A

Make sure the bag is installed all the way to the shoulder on the pipe to assure the bag doesn't come off during use.

IMPORTANT! For proper dust control, bags must be maintained on a daily or after each user basis. See Routine Maintenance and care for instructions.

8. GENERAL OPERATION

With the pad on the floor, grasp the handle release lever at your right fingertips to lower the handle to the operating position, and release the handle. The operating handle will now float during operation to provide uniform burnishing results and help prevent inadvertent heating or machine runaway.

To start the machine, grasp the control handle firmly **with both hands**, and depress either or both switch levers to start.

Burnishing is accomplished by walking forward, or forward and backward, rather than normal floor machine side-to-side motion.

9. ADJUSTING THE PAD PRESSURE

The pad pressure must be adjusted so the needle on the performance meter runs in the GREEN band. In most cases, the higher the needle is in the green, the greater burnishing performance will result. However, the machine will draw more current, also. Turn the adjusting knob in the direction required to reach the proper needle position. See Fig. 9A and 9B.

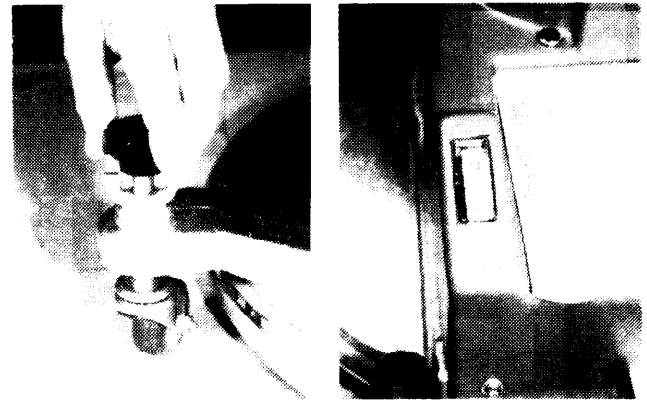


Fig. 9A

Fig. 9B

CAUTION: DO NOT ADJUST THE PRESSURE SO THE NEEDLE RUNS IN THE RED AREA. THIS WILL CAUSE THE PAD CIRCUIT BREAKER TO TRIP.

10. USING THE PAD PRESSURE METER

The following instructions are to be used once the initial pad pressure had been set.

During use, burnishing pads will become dirty or filled with floor finish. As this happens, you will notice the needle rising on the meter because the load on the motor increases. If the needle moves into the red position, it will cause the circuit breaker to trip. To reset, allow the pad motor to cool a few minutes, then press in on the pad motor circuit breaker.

If the breaker trips, either turn the pad over to a clean side, or replace with a new pad. Operators should watch the pad meter during use and change the pad **before** the breaker trips.

Operating Instructions

11. SPECIAL PRECAUTIONS DURING USE

- i) Do not allow the rotating pad to contact furniture or fixtures in the area it is being used, as severe damage can result to both the furniture and machine.
- ii) Do not allow the pad to rotate in one spot too long, as burning or total removal of the finish may occur.
- iii) Use the 2400P only on finishes that are appropriate for burnishing.
- iv) Do not operate machine if RED brush wear indicator lights. Carbon motor brush inspection is now required. **FAILURE TO REPLACE MOTOR BRUSHES COULD CAUSE MOTOR DAMAGE AND VOID THE WARRANTY.** See Fig. iv.



Fig. iv

- v) Always operate the burnisher away from your receptacle and powercord; do not allow the rotating pad or pad driver to come in contact with the cord or damage could result.

Routine Maintenance

ROUTINE MAINTENANCE AND CARE

CAUTION: Disconnect power supply before performing any maintenance operation.

1. DAILY MAINTENANCE (OR AFTER EACH USE)

- A) Remove pad from pad driver and clean per recommended instructions from pad/finish manufacturer. Wipe machine and powercord down with a damp cloth and completely wind cord for storage.
- B) Inspect the dust filter bag. If the cloth bag is used, remove from the enclosure. Unzip and turn inside-out; shake clean and reinstall. If paper bag is used, discard when **no more than 1/3 full**. Install new bag.
- C) Clean cooling vents on motor cover.
- D) Wipe any accumulated dust or debris from around the inside of the dust control skirt. See Fig. D.

2. SIX-MONTH MAINTENANCE (OR WHEN BRUSH WEAR INDICATOR LIGHTS)

It is recommended that six-month maintenance procedures be performed by an authorized technician. Inspection, adjustment, and lubrication are not warrantable items, and

thus may be performed by most qualified service people.

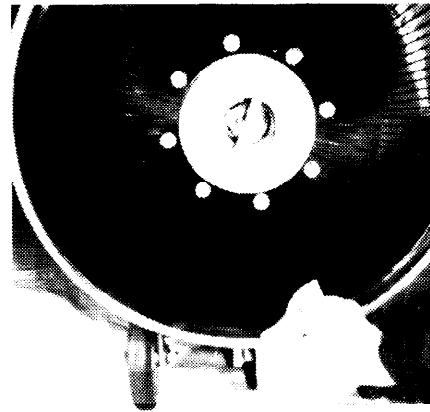


Fig. D

When the brush wear indicator lights, or no later than every six months of use, it is time to inspect the carbon motor brushes. Remove the screws from the top and rear of the motor shroud. Lift the shroud from the motor, taking care not to disconnect the wire leads from the indicator light and meter.

Inspect each of the four (4) brushes. If any brush is worn to 1/2" or less, replace the complete set. If brush wear is allowed beyond this point, severe motor damage could occur, voiding the warranty on the motor.

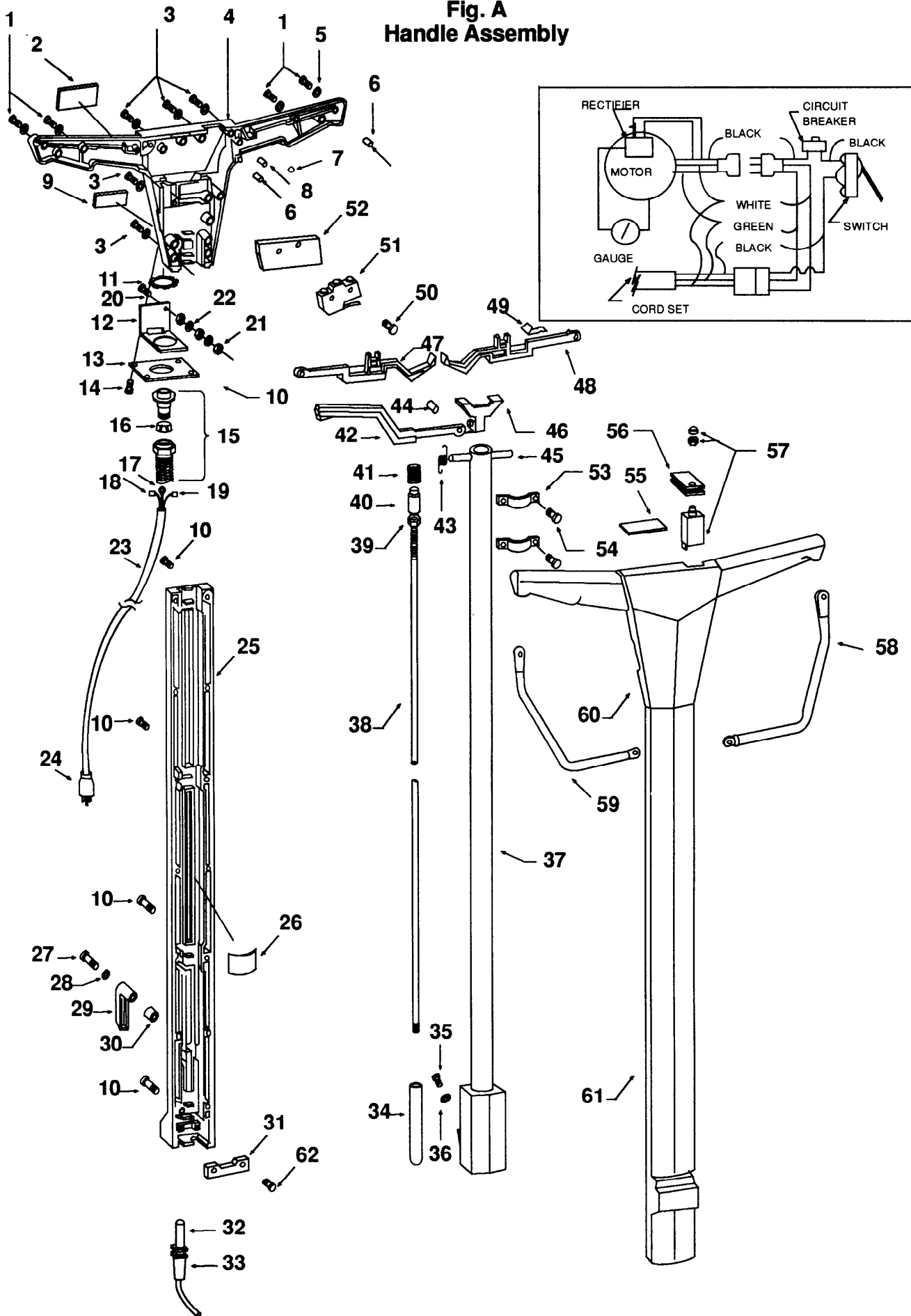
NOTE: Motor brushes are normal wear parts and are not covered under warranty.

Troubleshooting Guide

This is an operator-oriented guide only. Detailed troubleshooting assistance is available.

Problem	Probable Cause	Remedy
Machine does not operate	<ul style="list-style-type: none">◆ Not plugged in◆ Handle not in operating position◆ Circuit open or broken in building◆ Circuit breaker tripped on machine◆ Electrical open in unit	<ul style="list-style-type: none">◆ Connect to outlet◆ Lower into position◆ Call for Service◆ Reset◆ Contact Service Center for assistance.
Handle will not lower	<ul style="list-style-type: none">◆ Requires plunger adjustment	<ul style="list-style-type: none">◆ Contact Service Center for assistance.
Safety switch interlock will not release	<ul style="list-style-type: none">◆ Adjustment required	<ul style="list-style-type: none">◆ Contact Service Center for assistance.
Motor overheats	<ul style="list-style-type: none">◆ Louvers in motor shroud clogged with dust◆ Extension cord being used	<ul style="list-style-type: none">◆ Clean◆ Cease use of extension cord
Wall (panel circuit)	<ul style="list-style-type: none">◆ Breaker rated too low◆ Additional load on circuit◆ Loose terminations or frayed wires	<ul style="list-style-type: none">◆ Select 20 amp circuit◆ Remove load or select different circuit◆ Contact Service Center for assistance.
Machine breaker trips during use	<ul style="list-style-type: none">◆ Dirty/worn pad◆ Pad too aggressive◆ Extension cord being used◆ Adjustment knob set wrong◆ "Sticky" spray mixture◆ Faulty breaker◆ Electrical defect	<ul style="list-style-type: none">◆ Clean pad◆ Select different pad◆ Cease use of extension cord◆ Readjust◆ Dilute or select different mixture◆ Contact Service Center for assistance.◆ Contact Service Center for assistance.
Machine trips either breaker as soon as plugged in or switch is activated	<ul style="list-style-type: none">◆ Electrical defect	<ul style="list-style-type: none">◆ Contact Service Center for assistance.
Machine blows dust from pad area	<ul style="list-style-type: none">◆ Collector bag dirty or full	<ul style="list-style-type: none">◆ Clean (cloth) bag or replace (paper) bag
Brush wear light turns on	<ul style="list-style-type: none">◆ Motor brushes worn	<ul style="list-style-type: none">◆ Inspect and replace brushes

Fig. A
Handle Assembly



**Fig. A Handle Assembly
(Part No. 572.901.000)**

Key	Part Number	Machine Serial Number	Description	Qty.
1	200.070.346	(000000-)	Screw, Fill. Hd., Phil., M04 x 16	4
2	059.651.052	(000000-)	Decal, Warning, Electrical Shock	1
3	200.070.354	(000000-)	Screw, Fill. Hd., Phil., M04 x 30	7
4	419.510.974	(000000-)	Cover, Rear Handle	1
5	579202	(000000-)	Lockwasher, Int. Tooth, \varnothing 3.41	11
6	200.528.260	(000000-)	Pin, Handle	4
7	205.900.031	(000000-)	Ball, \varnothing 08 2	
8	200.528.266	(000000-)	Pin, Dowel, M03 x 16	2
9	069.770.015	(000000-)	Decal, Extension Cord Warning	1
10	200.070.351	(000000-)	Screw, Fill. Hd., Phil. M04 x 25	8
11	019.680.158	(000000-)	Nut, Lock, 1/2" x 1/4" NPT	1
12	019.683.035	(000000-)	Mounting Plate	1
13	019.680.144	(000000-)	Plate, Cord Grip	1
14	200.070.263	(000000-)	Screw, Pan Hd., Phil., M03 x 12mm	4
15	019.680.152	(000000-)	Strain Relief w/ Spring Guard	1
16	019.680.157	(000000-)	Bushing, Strain Relief	1
17	281.001.009	(000000-)	Terminal, Ring Tongue, #10, 14/16 GA.	1
18	281.004.002	(000000-)	Terminal, Q.C., 1/4" F., 14/16 Ga.	1
19	575.042	(000000-)	Terminal, Q.C., 1/4" M., 14/16 Ga.	1
20	579143	(000000-)	Screw, Truss Hd., #10-24 x .62"	1
21	579134	(000000-)	Nut, Hex, Std., #10-24 UNC, Zinc Plated	3
22	579046	(000000-)	Washer, Lock, Ext., .19 ID	2
23	019.686.053	(000000-)	Powercord, 14/3 STW, 75'	1
24	130503	(000000-)	Plug, 125V/15 Amp Straight Blade (Not Shown)	1
25	419.510.969	(000000-)	Cover, Shaft, Rear	1
26	019.680.086	(000000-)	Clip, Wire Retainer	4
27	200.017.494	(000000-)	Screw, Shoulder, M06 x 30	1
28	204.001.009	(000000-)	Washer, Spring, \varnothing 8.4mm, Zinc Plated	1
29	019.517.036	(000000-)	Hook, Cable	1
30	019.686.055	(000000-)	Spacer, 6.3mm x 75.8mm x 6	1
31	019.510.135	(000000-)	Clamp, Cable	1
32	019.686.087	(000000-)	Cordset, Handle, 14/3 AWG	1
33	019.517.011	(000000-)	Strain Relief	1
34	572.012.000	(000000-)	Pin, Locking (Nylon), Handle	1
35	200.031.491	(000000-)	Bolt, Hex Hd., M08 x 25	1
36	200.102.017	(000000-)	Nut, Hex M08	1
37	419.686.813	(000000-)	Pivot Block and Tube	1
38	572.125.000	(000000-)	Rod, Pull 1	
39	200.101.016	(000000-)	Jam Nut, M06	1
40	572.124.000	(000000-)	Stop, Spring Handle	1
41	572.013.000	(000000-)	Spring, Compression	1
42	572.127.000	(000000-)	Lever, Adjusting	1
43	019.686.061	(000000-)	Spring, Safety Interlock	1
44	200.528.438	(000000-)	Pin, Hinge, M06 x 20mm	1
45	200.528.457	(000000-)	Pin, Hinge, M06 x 80mm	1
46	019.686.060	(000000-)	Safety Interlock	1
47	019.510.014	(000000-)	Lever, Switch, Right	1
48	019.510.013	(000000-)	Lever, Switch, Left	1
49	019.510.137	(000000-)	Spring, Lever	2
50	200.051.274	(000000-)	Screw, Fill. Hd, Slot, M03 x 30mm	2
51	419.686.814	(000000-)	Switch, On-Off	1
52	019.686.031	(000000-)	Plate, Insulating	1
53	019.510.037	(000000-)	Clamp, Pipe	1
54	200.070.382	(000000-)	Screw, Fill. Hd., Phil., M05 x 10mm	4
55	019.680.146	(000000-)	Decal, Flammable Liquid Warning	1
56	419.686.807	(000000-)	Mounting Plate, Circuit Breaker	1
57	572.011.000	(000000-)	Circuit Breaker, 19 Amp	1
58	571.015.000	(000000-)	Stiffener, Handle, Left	1
59	571.014.000	(000000-)	Stiffener, Handle, Right	1
60	571.013.000	(000000-)	Cover, Handle, Front	1
61	419.510.968	(000000-)	Shaft Cover, Front	1
62	200.070.266	(000000-)	Screw, Fill. Hd., Phil., M03 x 16	2
63	50745	(000000-)	Protector, Hubbell Plug (Not Shown)	1

Fig. B - Base Casting Assembly

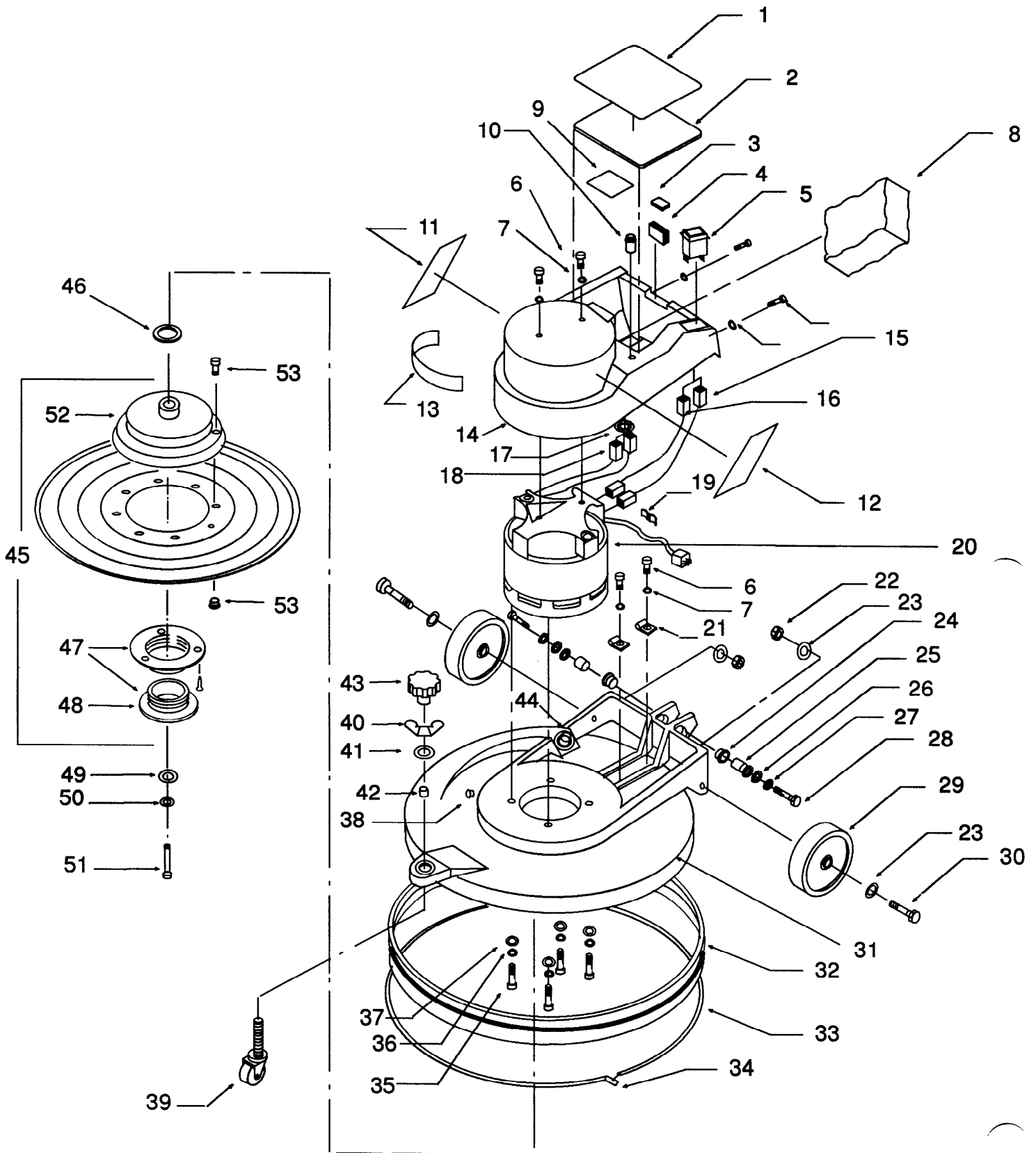


Fig. B - Base Casting Assembly

Key	Part Number	Machine Serial Number	Description	Qty.
1	572.069.000	(000000-	Decal, Operating and Maintenance Inst.	1
2	572.052.000	(000000-	Vac Bag Door Cover	1
3	572.057.000	(000000-	Steel Strike	1
4	572.056.000	(000000-	Magnetic Catch	1
5	572.139	(000000-	Gauge, Pad Pressure	1
6	200.470.106	(000000-	Screw, Pan Hd., Phil., #10-24 x .63" ZP	1
7	069.762.056	(000000-	Plain Washer, ANSI-A, #10, ZP	1
8	572.049.000	(000000-	Filter Bag, Paper	Pack of 10
	572.048.000	(000000-	Filter Bag, Dacron	1
9	572.007.000	(000000-	Decal, Wiring Diagram	1
10	572.039.000	(000000-	Brush Wear Indicator Light	1
11	572.070.000	(000000-	Decal, Side Stripe, Right	1
12	572.071.000	(000000-	Decal, Side Stripe, Left	1
13	572.802	(000000-	Decal, ServiceMaster ID	1
	120240	(000000-	Decal, Nobles ID	1
14	572.041.000	(000000-	Motor Shroud	1
15	572.066.000	(000000-	Wire Assembly, Gauge	1
16	572.067.000	(000000-	Wire Assembly, Gauge	1
17	602.140.000	(000000-	Light Clip	1
18	281.004.007	(000000-	Terminal Connector	2
19	578.422	(000000-	Clamp, Wire	1
20	572.062.000	(000000-	Motor and Cord Assembly	1
21	572.072.000	(000000-	Strain Relief	2
22	069.777.305	(000000-	Nut, Hex Lock, .38-16 UNC, Nylon Ins.	2
23	579.144	(000000-	Flat Washer, 10.5mm	1
24	572.014.000	(000000-	Base Casting Bearing	2
25	572.015.000	(000000-	Bearing Spacer	2
26	14880.5	(000000-	Plain Washer, ANSI-A, .31", ZP	2
27	200.351.019	(000000-	Lock Washer, ANSI-A, .31", ZP	2
28	200.031.494	(000000-	Screw, Hex Hd., M08 x 30mm	2
29	039.708.026	(000000-	Rear Wheel	2
30	039.708.121	(000000-	Screw, Hex Hd., .38-16 x 2.75", ZP	2
31	572.040.000	(000000-	Base Casting	1
32	572.046.000	(000000-	Skirt	1
33	069.767.094	(000000-	Skirt Band	1
34	602.044.000	(000000-	Adjusting Band Fastener	1
35	019.686.107	(000000-	Screw, Hex Hd., 3/8-16 x .75"	4
36	069.760.100	(000000-	Lock Washer, Sprg., ANSI, .38, ZP	4
37	14880.5	(000000-	Washer, Plain, ANSI-A, .31", ZP	4
38	069.767.168	(000000-	Plug, Button, \varnothing .25"	1
39	572.051.000	(000000-	Adjustment Castor	1
40	572.138	(000000-	Nut, Wing, .5-20 UNF	1
41	630447	(000000-	Nylon Washer, 12.7mm	1
42	621.126.000	(000000-	Spacer, .25", Steel	1
43	019.686.104	(000000-	Height Adjusting Knob	1
44	572.059.000	(000000-	Tube, Vac Bag	1
45	600246	(000000-	Asm., Pad Driver.	1
46	069.760.023	(000000-	Washer, Flat	1
47	25707	(000000-	Asm., Center Lock	1
48	100101	(000000-	Ring, Pad Retainer	1
49	069.764.631	(000000-	Washer, Flat, 8.4mm	1
50	630455	(000000-	Washer, Lock, Sprg., ANSI, .31", ZP	1
51	069.762.131	(000000-	Screw, Hex Hd., 5/16-18 x .75", SS	1
52	600245	(000000-	Hub, Pad Driver	1
53	190177	(000000-	Screw & Caps (Pack of 8)	1

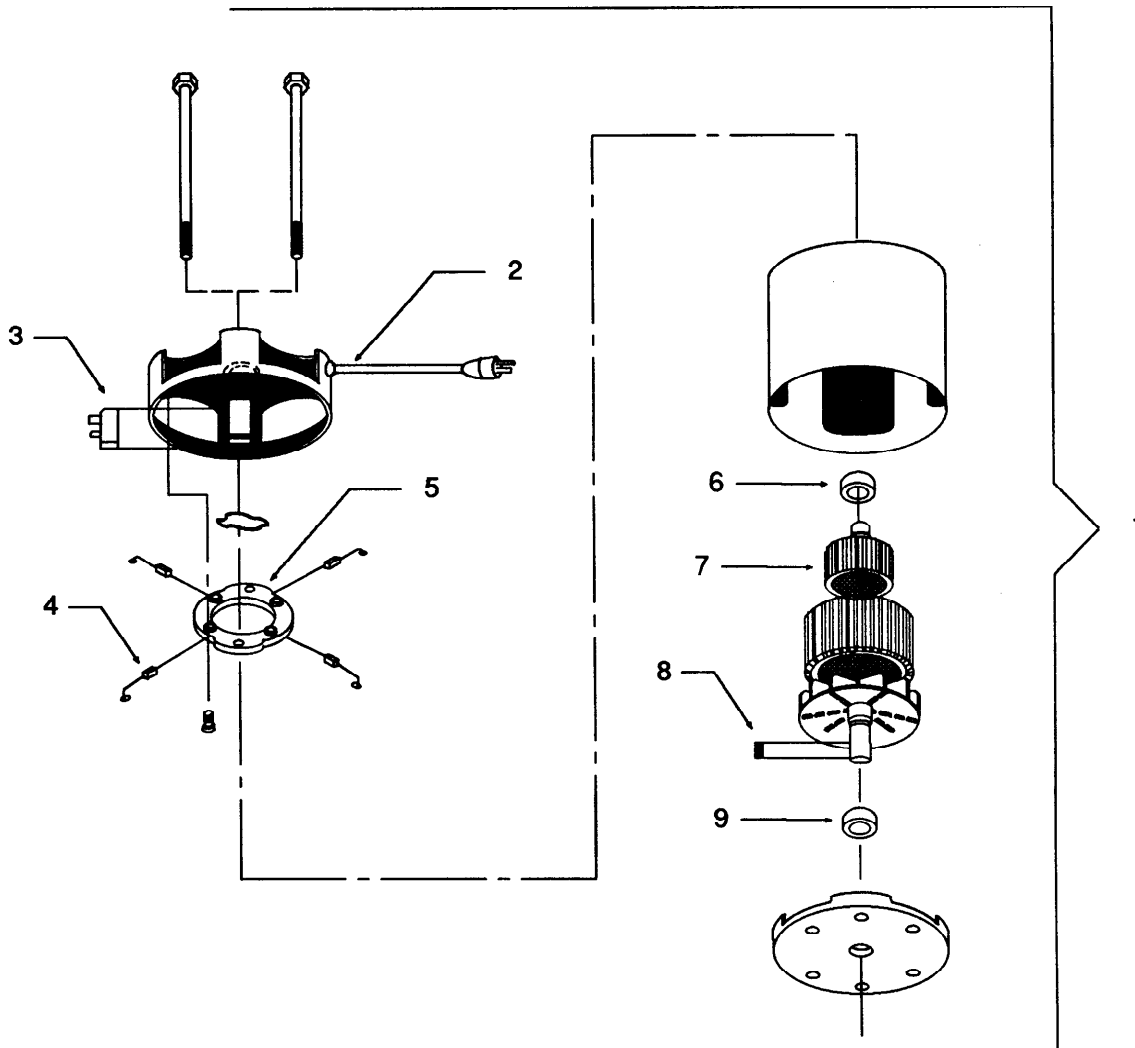


Fig. C Motor Assembly

Key	Part Number	Machine Serial Number	Description	Qty.
1	572.062.000	(000000-)	Motor and Cord Set Assembly	1
2	572.044.000	(000000-)	Cord Set	1
3	019.683.017	(000000-)	Bridge Rectifier	1
4	22117	(000000-)	Motor Brushes	4
5	572.097.000	(000000-)	Motor Brush and Board Assy. (Incl. Item 4)	1
6	572.029.000	(000000-)	Bearing, F.E.	1
7	572.098.000	(000000-)	Armature Assembly (Incl. Items 6 and 9)	1
8	602.010.000	(000000-)	Shaft Key	1
9	572.028.000	(000000-)	Bearing, B.E.	1

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