

160 Powerhead

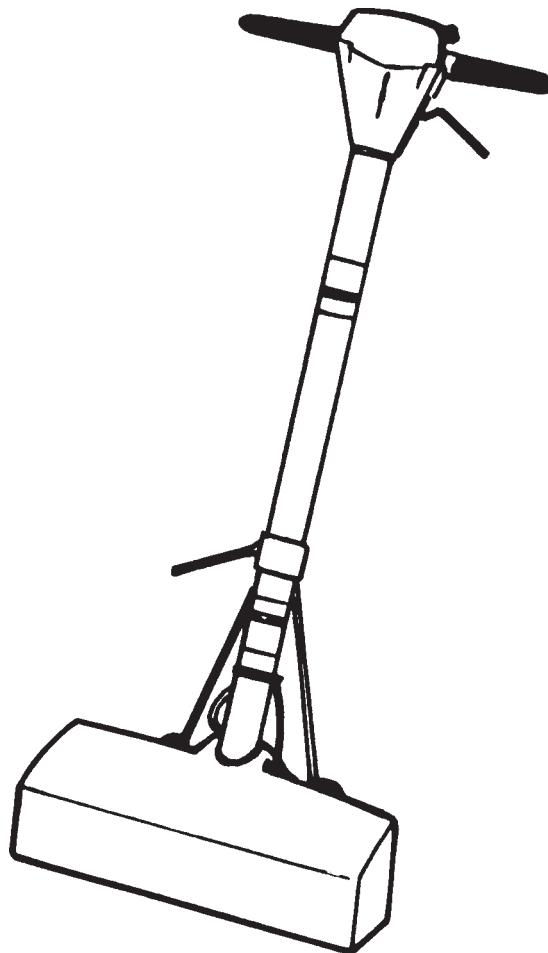
Model: 829601-115V
831700-240V

OPERATION

SERVICE

PARTS

CARE



Revised 1/94

Minuteman[®]

FOR COMMERCIAL USE ONLY

IMPORTANT SAFETY INSTRUCTIONS

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

READ ALL INSTRUCTIONS BEFORE USING

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

- Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.

WARNING

To reduce the risk of electrical shock - Do not expose 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 appliance 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 or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance 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 appliance with wet hands.
- 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 hair, loose clothing, 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.
- Do not use without dustbag and/or filters in place.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Do not use to pick up 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.

SAVE THESE INSTRUCTIONS

INSPECTION

Carefully unpack and inspect your machine for shipping damage. Each unit is tested and thoroughly inspected before shipment, and any damage is the responsibility of the delivery carrier who should be notified immediately.

ELECTRICAL - 115 Volt

This machine is designed to operate on a standard 15 amp, 115 volt, 60 hz, AC circuit. Voltages below 105 volts AC or above 125 volts AC could cause serious damage to the motor.

ELECTRICAL - 240 Volt

This machine is designed to operate on a standard 10 amp, 230 volt, 50 hz, AC circuit.

WARNING

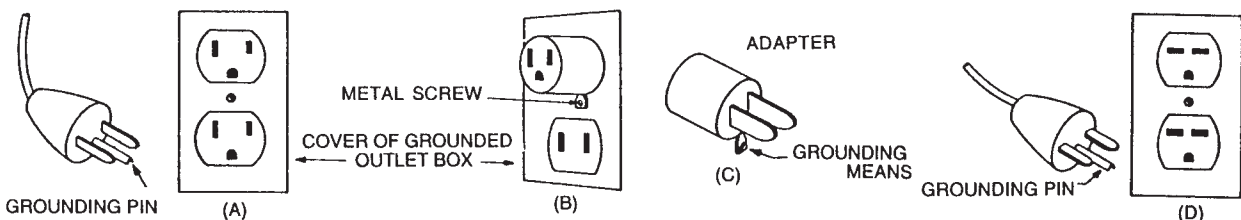
Electric motors can cause explosions when operated near explosive materials or vapors. Do not operate this machine near flammable materials such as solvents, thinners, fuels, grain dust, etc.

GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance 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 and grounded in accordance with all local codes and 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 appliance -- if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

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



EXTENSION CORDS

If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine and must be limited to 25 feet in length. Extension cord must be three-wire grounded.

Recommended Minimum Gauge for Cord Extensions

Wire Gauge Chart A.W.G.					
Name Plate Amps.	120V 240V	Cord Length in Feet			
		25 50	50 100	100 200	150 300
5-6		18	16	14	12
6-8		18	16	12	10
8-10		18	14	12	10
10-12		16	14	10	8
12-14		16	12	10	8

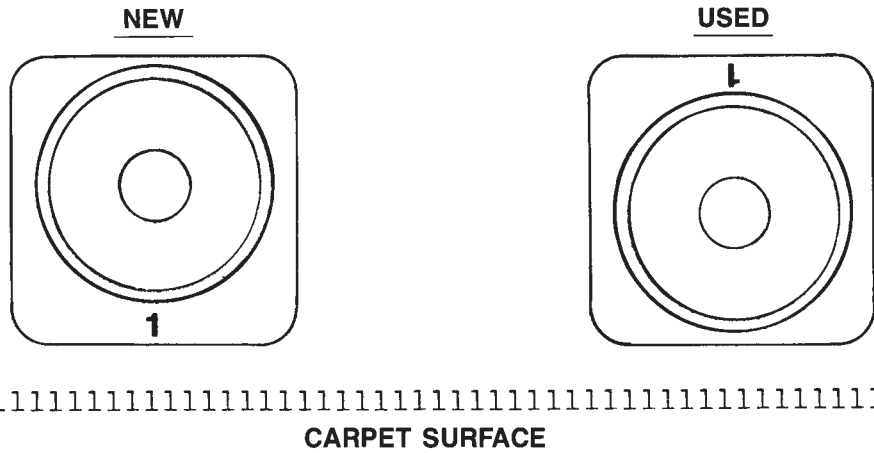
MAINTENANCE AND USAGE

SPRAY PATTERN

If a streak is left on carpet, spray nozzle may be adjusted by loosening clamps (Item no. 48, pg. 5) and rotating PVC Tube (Item no. 68, page 5) slightly until all spray patterns overlap approximately 1/4". If nozzles clog they can be cleaned by removing both end caps and flushing pipe out with clean water. If debris becomes lodged in spray nozzles they may be removed and blow cleaned or washed.

BRUSH PRESSURE

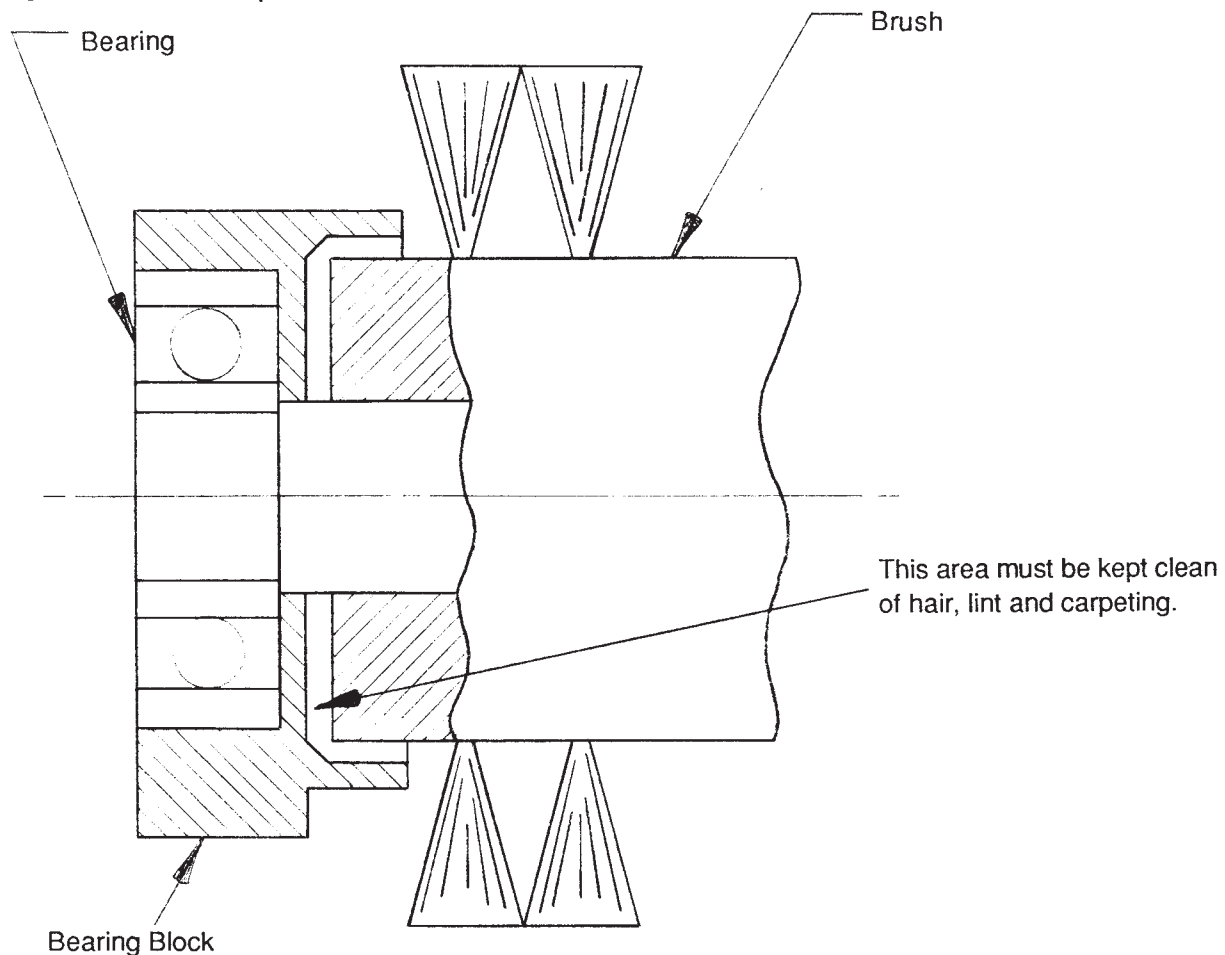
When brush bristles become worn to approximately 5/16" both bearing blocks can be rotated 180° so numeral "one" is toward the frame surface and away from the carpet surface. This doubles the life of the brush. When replacing old brush be sure bearing blocks show numeral "one" toward the carpet surface.

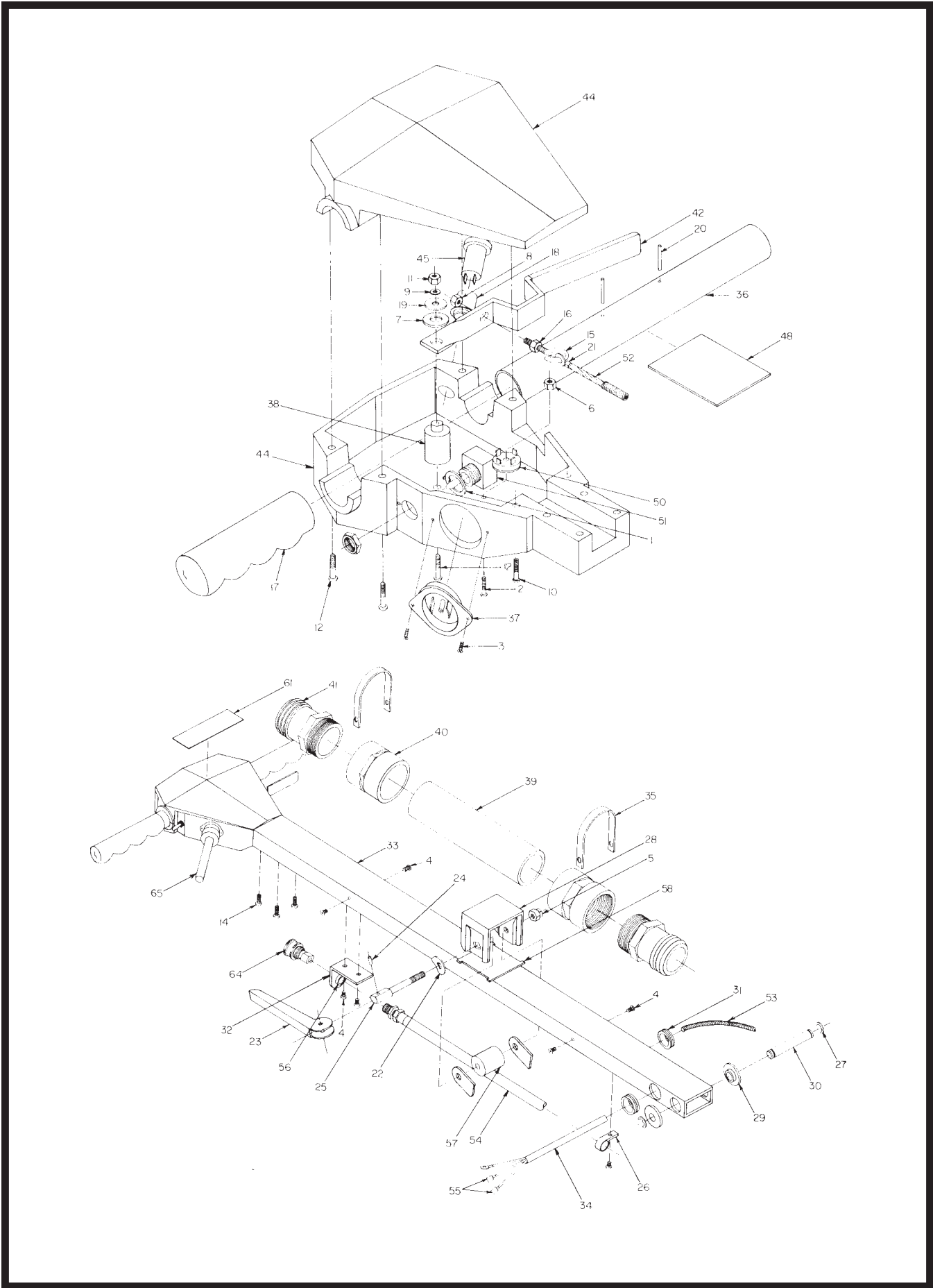


The two grey rubber blocks that hold the brush bearings are originally positioned with the numeral "one" toward the cleaning surface. When brush becomes worn, both blocks should be rotated as shown. This will lower brush. When replacing brush (#829622) insure both blocks are in their original position.

GENERAL MAINTENANCE

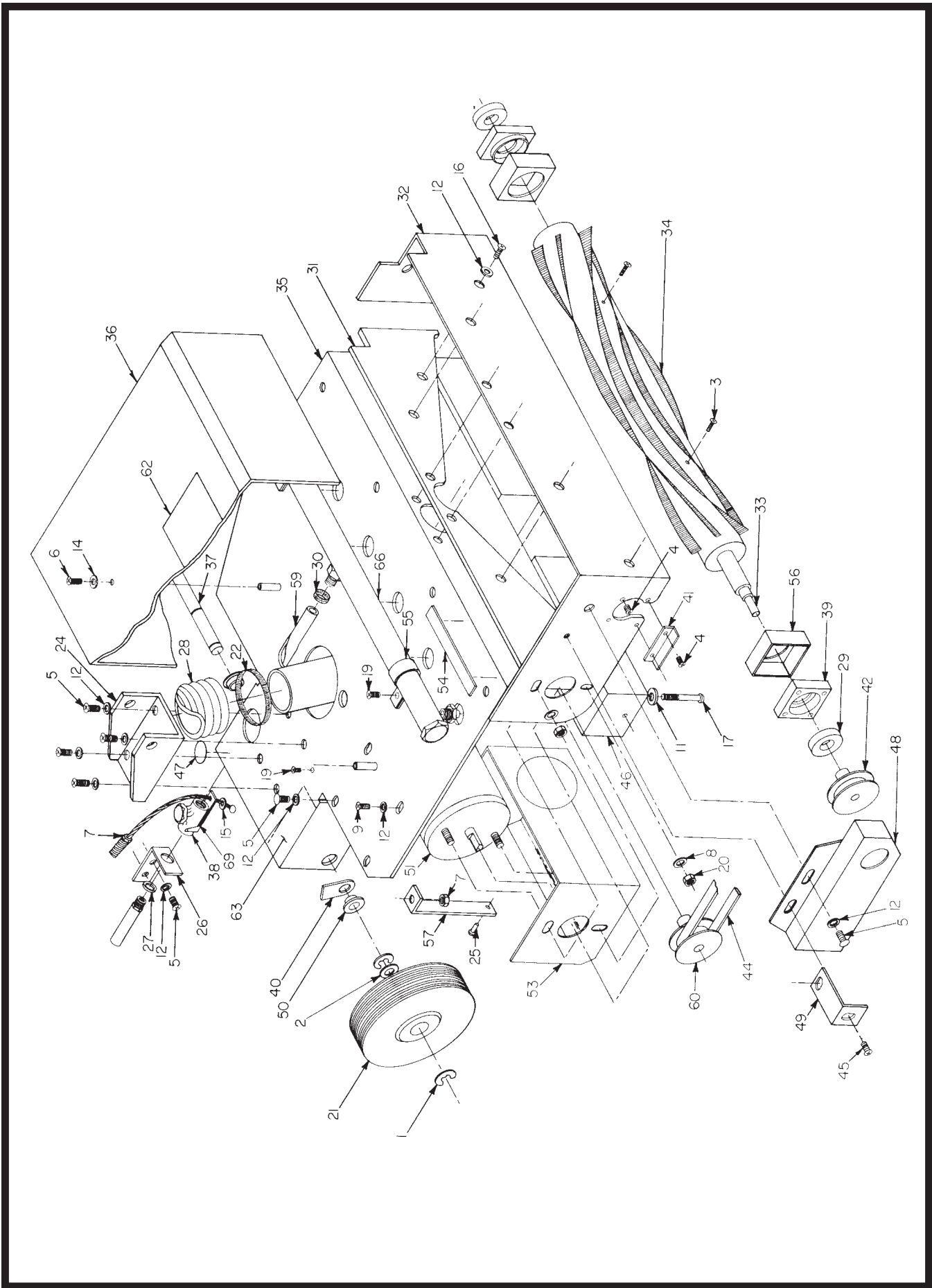
1. Clean lint and debris from brush and brush shaft bearing holders. This should be done once per week if machine is used daily. A buildup of hair, lint or carpeting between the end of the brush and the bearing holder can wear out the Bearing Water-Tite seal and cause premature bearing failure due to corrosion of the bearing.
2. Flush spray system with hot water after every use to prevent detergent buildup on spray tips and spray tube.
3. Clean squeegee bar periodically to prevent debris buildup. A visual inspection before use is recommended once every two weeks. Flush this area out with hot water.
4. The transport wheels and axle should be lubricated once a week with a light grade oil or WD-40. This will prevent the wheel from seizing onto the shaft causing premature wear to both the wheel and axle.
5. Brush drive belt should be periodically checked for proper tension. A too tight condition can cause a premature wear on the bearings and brush shaft. A too loose condition will cause belt chattering and wear. The belt should be tensioned to obtain approximately 1/4 inch of flex.
7. The carbon brushes in the brush drive motor should be periodically inspected. If carbon brushes become worn (approx. 1/4" inch in length) they should be replaced by part number 831429. Early detection of carbon brush wear can prevent a more significant motor problem later on.





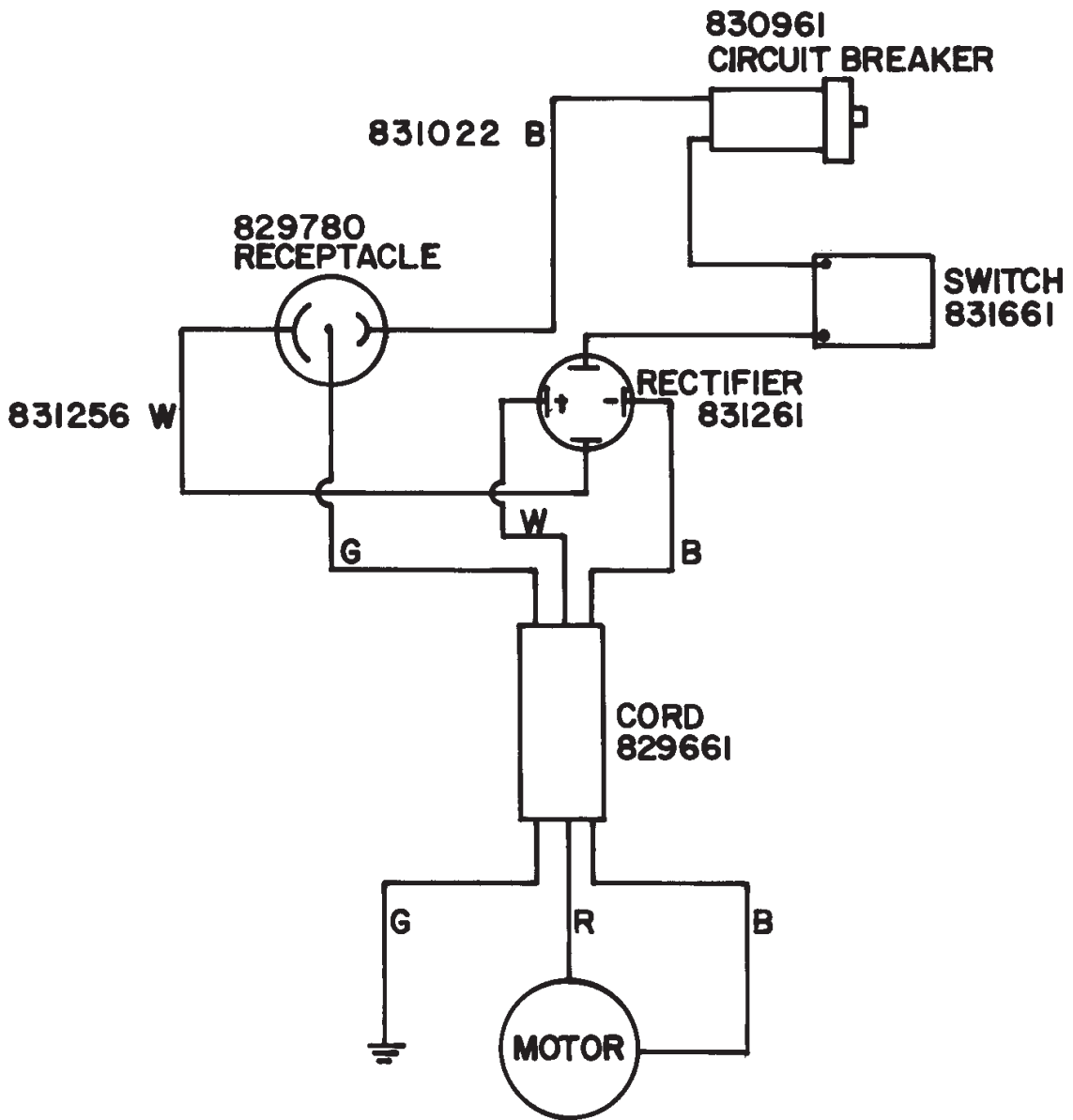
HANDLE ASSEMBLY

ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	601056	1	Ring lock
2	710304	1	S-R-P 6-32x5/8 810323
3	710208	2	S-R-P 6-32x5/16 810318
4	711116	7	S-R-SH 10x3/8 811040
5	711374	1	N-H-Y 5/16-18 811893
6	711435	1	N-FG-L 6-32 811852
7	711534	1	WL 195x410x022 811873
8	712905	2	N-H 10-24 811868N
9	712302	1	WF 187x500x065 811917
10	712533	2	Screw 10-24 x 1.25
11	712638	1	N-FG-L 10-24 811999S
12	712815	5	S-R 10-24x1.75 811036
14	711144	4	S-T-P 10-24x1/2 811067
15	712825	1	BE 10-24x1.5 811103
16	712905	1	Hex-Nut 10-24
17	762086	2	Grip, handle
18	801177	1	Bushing
19	804423	1	Springwasher
20	804512	2	Pin
21	806021	1	Terminal, cable
22	806555	1	Washer, cam
23	806558	1	Kick lever
24	806561	1	Pin, dowel
25	807190	1	Bolt cam
26	807713	1	Clamp
27	808778	2	E-ring
28	808883	1	Clamp
29	809003	2	Bushing
30	827028	1	Axle
31	827624	2	Bushing
32	829605	1	Bracket q.c.
33	829630	1	Handle tube
34	829661	1	Wire, handle
35	829768	2	Clamp hose
36	829776	1	Handle
37	829780	1	Receptical
38	829782	1	Bushing
39	829785	1	Tube 17 1/4 lg.
40	829786	2	Slip adaptor
41	829787	2	Hose barb
42	829790	1	Lever, sol.
43	830413	2	Terminal
44	830828	1	Switch box assembly
45	830961	1	Circuit breaker
46	831022	1	Lead assembly black
48	831024	1	Insulation paper
49	831256	1	Lead assembly white
50	831261	1	Rectifier
51	831661	1	Switch assembly
52	832181	1	Cable
53	832182	1	Jacket
54	832457	1	Hose, assembly sol.
55	832784	2	Terminal
56	832884	1	-240 spacer
57	833631	1	Roller
58	833632	1	Slide
61		1	Decal-handle
64	828370	1	Quick connector
65	829820	1	Cord assembly 18 ft.



BASE ASSEMBLY

ITEM NO.	PART NO.	QTY.	DESCRIPTION	ITEM NO.	PART NO.	QTY.	DESCRIPTION
1	700430	4	Ring Snap	37	829666	1	Axle Wheel
2	700435	2	Washer Spring	38	828023	1	Valve Control
3	710130	2	SCR-MC 8-32 x .62 ST	39	829758	2	Bearing Block
4	710328	8	SCR 8-32 x 3/8	40	829772	2	Handle Brace
5	710378	9	SCR-MC 1/4-20 x .50	41	829775	1	Shoe Belt Guard
6	710558	2	SCR-MC 10-32 x 1.00	42	829823	1	Pulley
7	711425	3	Nut-Flanged Wizz 1/4-20	44	829895	1	Belt
8	711503	2	WSR-Flat #10	45	711144	1	SCR-ST-F 10-24 x .5
9	710380	1	SCR-MC 1/4-20 x .75	46	830030	2	Bar Weight
11	711536	4	WSR-Helical .26 x .47 x .02	47	831001	1	LA Approved Decal
12	711544	15	WSR-Helical 1/4	48	831040	1	Cover Belt
14	712312	2	WSR-Fin .23 x .59	49	831041	1	Angle Bracket
15	712314	1	WSR-Flat .16 x .37 x .03	50	831212	2	Flange Bearing
16	712565	6	SCR-MC 1/4-20 x .62	51	831238	1	Motor 1/6 HP
17	712568	4	SCR-MC 1/4-20 x 2.25	51A	832611	1	Brush Motor 240V
19	712829	3	SCR-THMS 10-24 x .50	53	831282	1	Motor Cover
20	712908	2	Nut-flanged Wizz 10-24	54	831339	1	Doortight 1"
21	804545	2	Wheel Grey	55	831418	2	Clamp Metal PVC Coated
22	806157	2	Clamp Hose	56	831610	2	Brush Shield
23	809443	2	Clip Cord	57	831646	1	Bracket Strap
24	827107	1	Bracket Handle	58	832366	2	Term, Male 1/4
25	829214	1	Rivet	59	832463	1	Hose Nylo .25 x 5.5 1/4 NPT
26	828032	1	Bracket Valve	60	829823	1	Decal
27	828469	1	Spacer	63	715029	1	Nameplate
28	828976	1	Hose	64	828370	1	BH 2-60 Female Coupler
29	829044	2	Bearing	65	829820	1	Cord Assembly
30	829129	1	Hose Clamp Micro-Seal	66	830015	1	Spray Assembly (Includes *)
31	829609	1	Gasket	67	712638	1	Nut-Greer Lock 10-24
32	829610	1	Brush Plate	68	712814	1	Screw 10-24 x .50
33	829620	1	Brush Shaft	69	828024	1	Valve Lever
34	829622	1	Brush	*	829619	2	End Cap (Replacement)
35	829629	1	Base Weldment	*	832458	1	Hose Carb (Replacement)
36	829665	1	Cover	*	832472	6	Spray Nozzle (Replacement)



LIMITED WARRANTY

Minuteman International, Inc. warrants to the original purchaser/user that this product is free from defects in workmanship and materials under normal use and service for a period of three years from date of purchase. In addition, Minuteman International, Inc. will, at its option, honor labor warranty claims for the first 12 months from date of sale, provided such claims are submitted through and approved by factory authorized repair stations. Minuteman International, Inc. will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care, such as belts, cords, switches, hoses, rubber parts, electrical motor components or adjustments. Parts not manufactured by Minuteman International, Inc. such as engines, batteries, battery chargers, hydraulic pumps, and tires are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International, Inc. for procedures in warranty claims against these manufacturers.

Special warning to purchaser — Use of replacement filters and/or prefilters not manufactured by Minuteman International, Inc. or its designated licensees, will void all warranties expressed or implied.

A potential health hazard exists without exact original equipment replacement.

All warranted items become the sole property of Minuteman International, Inc. or its original manufacturer, whichever the case may be.

Minuteman International, Inc. disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. Minuteman International, Inc. assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. Minuteman International, Inc. is not responsible for costs or repairs performed by persons other than those specifically authorized by Minuteman International, Inc. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product.

If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

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