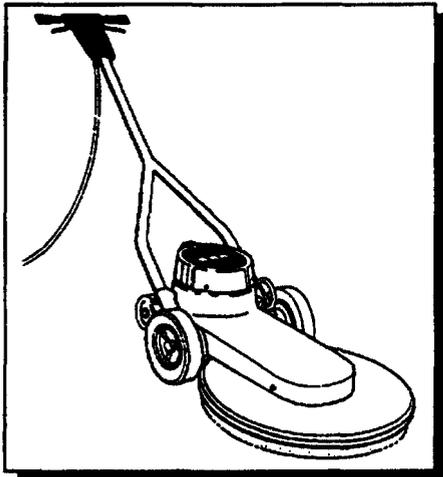
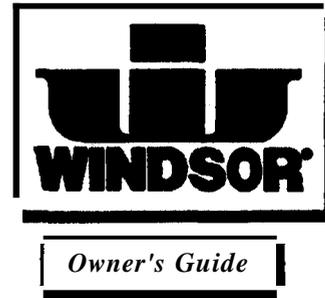


MD1500

HIGH SPEED BURNISHERS



MODELS: **POWER SOURCE**
MD1500 115V ELECTRIC
MD1500J 100V ELECTRIC

Record model and serial number located on data label. Refer to these numbers when calling Windsor dealer for parts or service.

MODEL: _____
SERIAL NUMBER: _____
PURCHASE DATE: _____

QUEST ... for Continuous Improvement.
Windsor's Quality Management System is Certified ISO 9001.

UL LISTING COVERS 115V MD1500 ONLY



Contents:

1. Important Safety Instructions
3. Inspection, Grounding and Operation
4. Maintenance-Service
5. Motor, Frame, Driver Assembly
6. Cover and Lower handle Assembly
8. Upper Handle Assembly
10. Wiring Diagrams
12. Warranty

Read these instructions before operating the machine

Antes de usar la maquina lea atentamente el libro de instrucciones

Lire attentivement le mode d'emploi avant la mise en service de la machine

98068 01/12/01



IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

This machine is for commercial use.



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

1. **Do not** operate without filters (dry or wet) in place.
2. Use only **as** described in this manual. Use only manufacturer's recommended attachments.
3. Use indoors **only**. Do **not** use outdoors and do not expose to rain.
4. **Machine can cause a fire** when operating near flammable vapors or materials. Do **not** operate this machine near flammable fluids, dust or vapors.
5. Do **not** pick up flammable fluids, dust or vapors.
6. Do **not** vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.
7. Do **not** handle the plug or machine with wet hands.
8. Do **not** leave the machine unattended. Unplug machine from outlet when in use and before servicing.
9. Do **not** leave the machine unattended. Unplug machine from outlet when not in use and before servicing.
10. Do **not** unplug machine by pulling on cord. To unplug, grasp the plug, **not** the cord.
11. Do **not** use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.
12. If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an Authorized service center.
13. 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.
14. Do **not** pull/run machine over cord. **Keep** cord away from heated surfaces.
15. Do **not** allow to be used as a toy. **Close attention** is necessary when used by or near children.
16. Do **not** operate machine with any openings blocked. Keep openings free of debris that may reduce airflow.
17. **Keep** hair, loose clothing, fingers, and all parts of the body away from openings and moving parts.
18. Use extra caution when cleaning on stairs.
19. Do **not** use machine as a step.
20. Connect to a **properly** grounded outlet. **See** Grounding Instructions.
21. **Maintenance and repairs must be done by qualified personnel.**
22. Rotating fan blades inside the cover. Before opening cover, switch off machine. Wait until the fan/brush stops completely or dust and debris may be ejected.

SAVE THESE INSTRUCTIONS

INSPECTION

Please carefully unpack and inspect your machine for shipping damage. Each unit is operated and thoroughly inspected before shipment, and any damage is the responsibility of the delivering carrier who should be notified immediately.

ELECTRICAL

This rotary polisher is designed to operate on a standard 15 amp, 115 volt, 60 hz, AC household current. Check that the voltage shown on the serial number plate is suitable for the supply available. Voltages below 105 volts or above 125 volts could cause damage to the motor.

NOTE 230/250 v dt 50 hz models are available.

GROUNDING INSTRUCTIONS

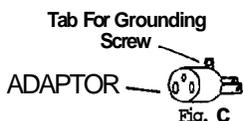
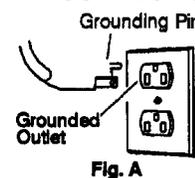
This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted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

WARNING :

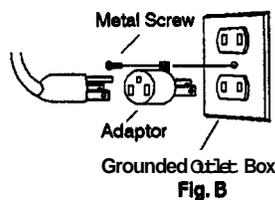
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A" below. A temporary adaptor that looks like the adaptor in "Fig. C" below may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B" below, if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.

PROPER GROUNDING CONNECTION



GROUNDING CONNECTION USING AN ADAPTOR



NOTE: Adaptors are not allowed in Canada.

OPERATION

CAUTION: For Indoor Use Only.

When using the pad, always keep the machine moving when in contact with the floor.

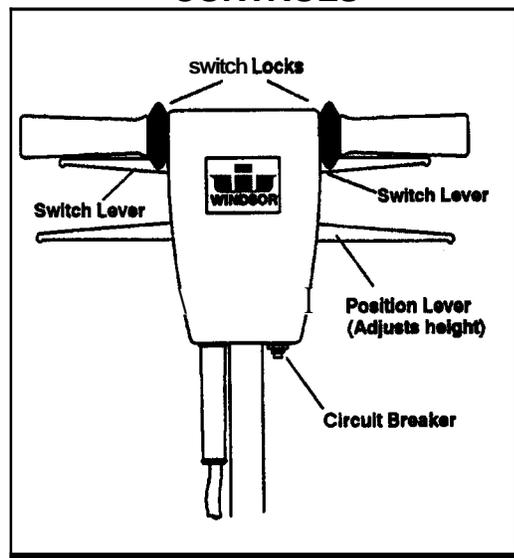
HIGH STARTING TORQUE. HOLD MACHINE FIRMLY WITH BOTH HANDS.

1. Ensure that the pad driver is installed correctly and in good shape. Install or change pad if necessary (See Page 4 for detail of installation).
2. Plug the machine into a wall outlet as described in the grounding instructions.
3. Lower the handle by unlocking the adjustment handle and moving the handle into position. Relock the handle when it is in a comfortable position.
4. Check to be sure the pad driver is installed before starting.
5. With the switch lock(s) rotated forward, squeeze one of the switch levers, turning the machine on. (These levers can be operated independently of each other)
6. To stop the machine, release the switch lever and switch lock.

NOTE: The machine is equipped with a circuit breaker to protect the motor in the event an overload condition occurs. The circuit breaker is located at the bottom of the switch housing. Push the reset button to restart the machine. If the breaker trips again, correct the cause of overloading before proceeding.

7. Do not let machine rest on pad. When finished with the machine for the day return handle to the storage position. Be sure to leave machine in a safe place where there is no risk of being tipped over.

CONTROLS





MAINTENANCE INSTRUCTIONS FOR THE MD1500 SERIES OF FLOOR SCRUBBERS

WARNING: Remove machine power cord from electrical source before making any adjustments or repairs to the machine. Only qualified maintenance personnel are to perform repairs.

NOTE: In the following instructions all letter designations, i.e. **A** will be shown in the upcoming graphical examples in this guide.

MOTOR

The polisher is equipped with a rectified DC permanent magnet motor. An external mounted warning light will "Light Up" when the carbon motor brushes become worn and replacement is required.

1. Remove (4) screws holding motor cover. **A**
2. Remove rear transport wheels and axle.
3. Remove (2) screws holding motor shroud. (Located front and rear) **B**
4. Remove inspection band from motor.
5. Use a hook to pull brush springs out of the way. Pull old brushes out of the holder. Install the new brushes making sure the brush lead does not prevent free movement of the brushes in the holder.

CAUTION: Make sure the brush with the YELLOW sensor lead is installed in the same holder as the old brush.

WHEELS – HANDLE PIVOT BRACKETS

1. Wheels – Remove the center screw holding wheel axle. When reinstalling wheels add a small amount of silicone lubricant to axle.
2. Pivot Brackets – Remove wheel axle screw. Remove (4) socket head screws holding bracket to main frame. repair as needed.

PAD DRIVER PULLEY

1. Remove (4) bolts holding pulley to main frame. **C**

Remove wheels every 2 to 3 months. Clean axle and apply a small amount of silicone lubricant. Reinstall wheels.

PULLEY BEARINGS

7. Remove snap ring from shaft. Use arbor press or hammer with rod and tube to remove bearings. Replace bearings as needed.

NOTE: If bearings are seized in pulley use a propane torch to apply a small amount of heat to bearing boss.

DRIVE PAD

1. Remove (3) screws holding pad holder plate. **@**
2. Remove (8) screws holding pad to pulley. **@**
Install new pad as needed.

BELT

7. Remove drive pad.
2. Remove (4) screws holding brush shroud **F** and (4) screws holding rear belt cover. **G**

DAILY MAINTENANCE:

(At the end of each working day):

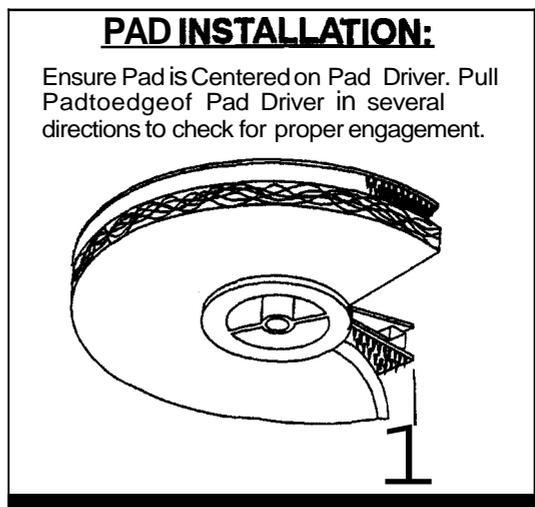
7. Inspect power cord for wear. To prevent electrical shock replace cords with frayed or cracked insulation immediately.
2. Place machine in the storage position.
3. Check pad condition. Change if soiled or torn.

PADS

Only standard 1/2 inch thick pads suitable for low speed burnishing are recommended.

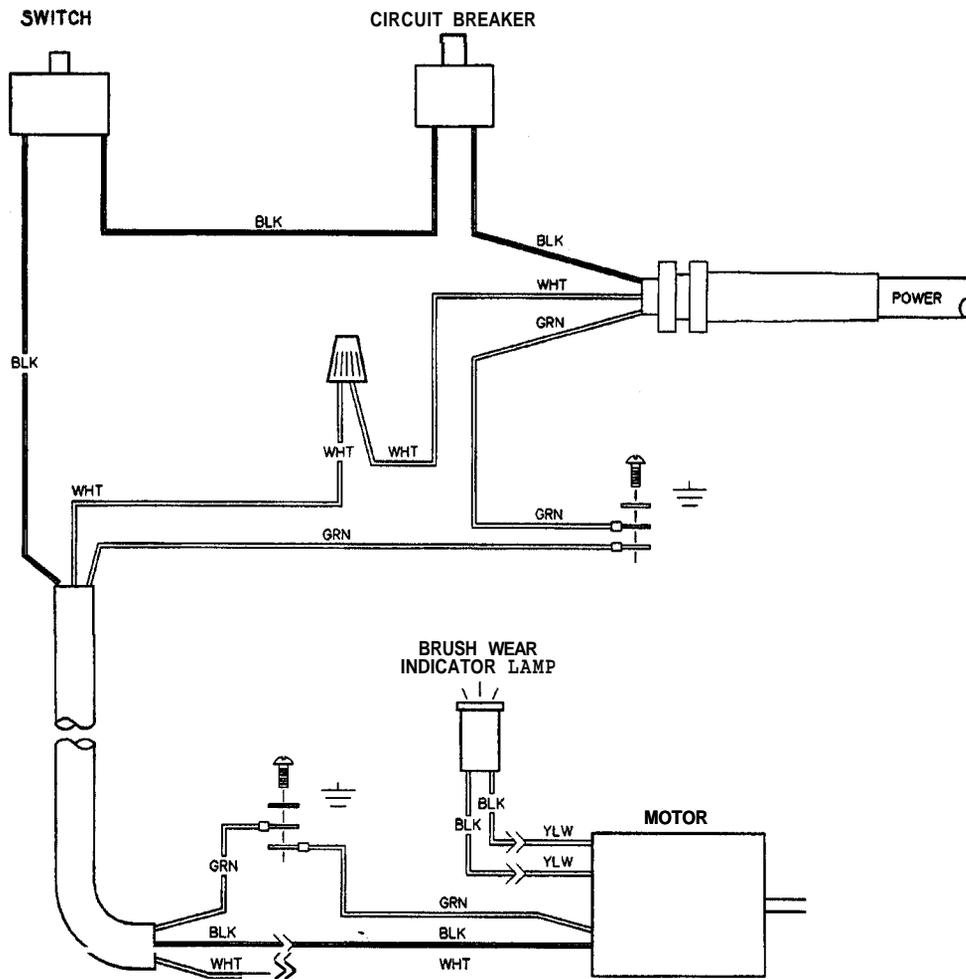
PAD DRIVER INSTALATION:

1. Lay machine back on the ground, exposing the underside.
2. Place pad driver on the motor lug and rotate clockwise until engaged. To remove, turn Counter-clockwise.



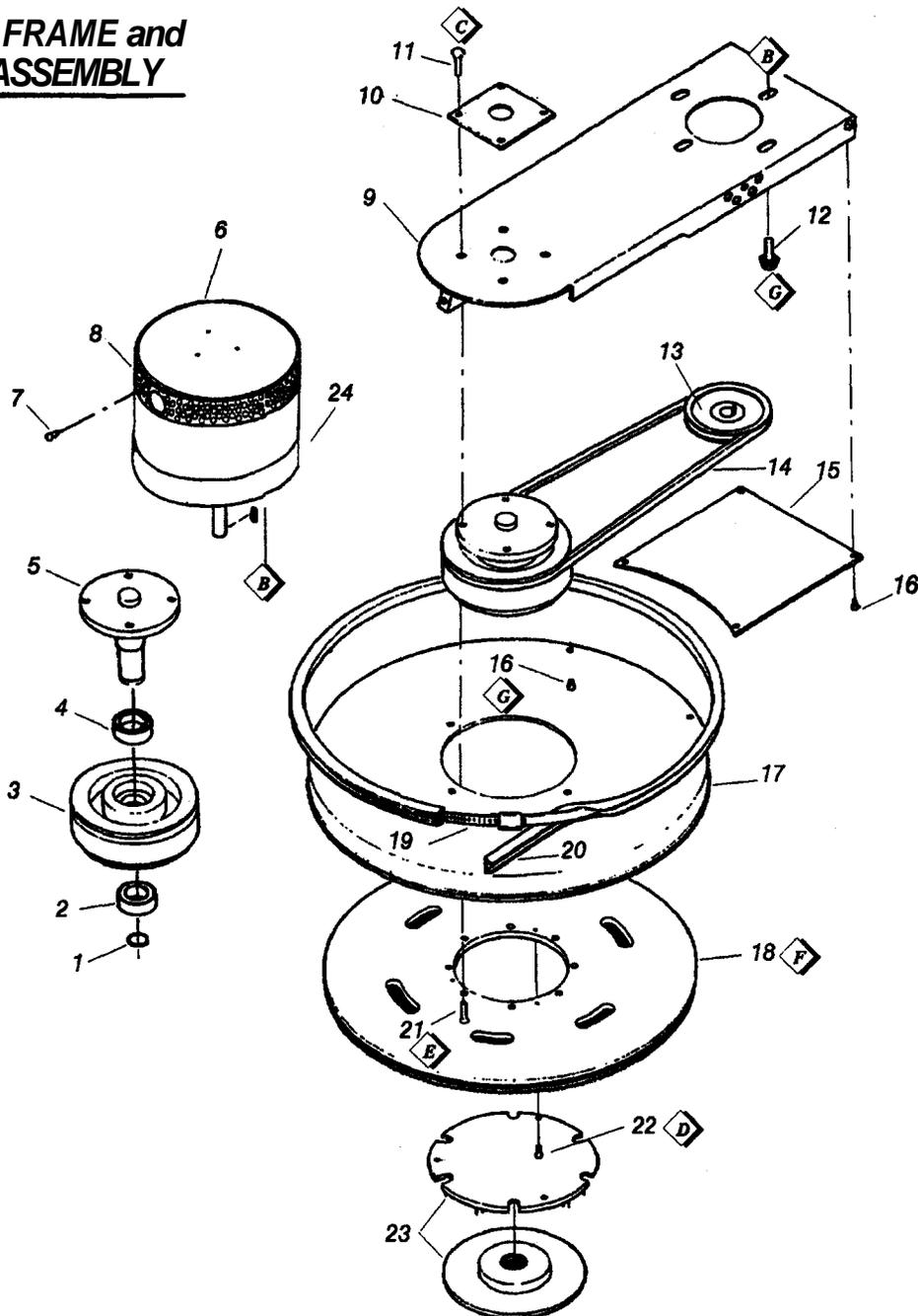
WIRING DIAGRAM

MD1500 - 115V



NOTES:

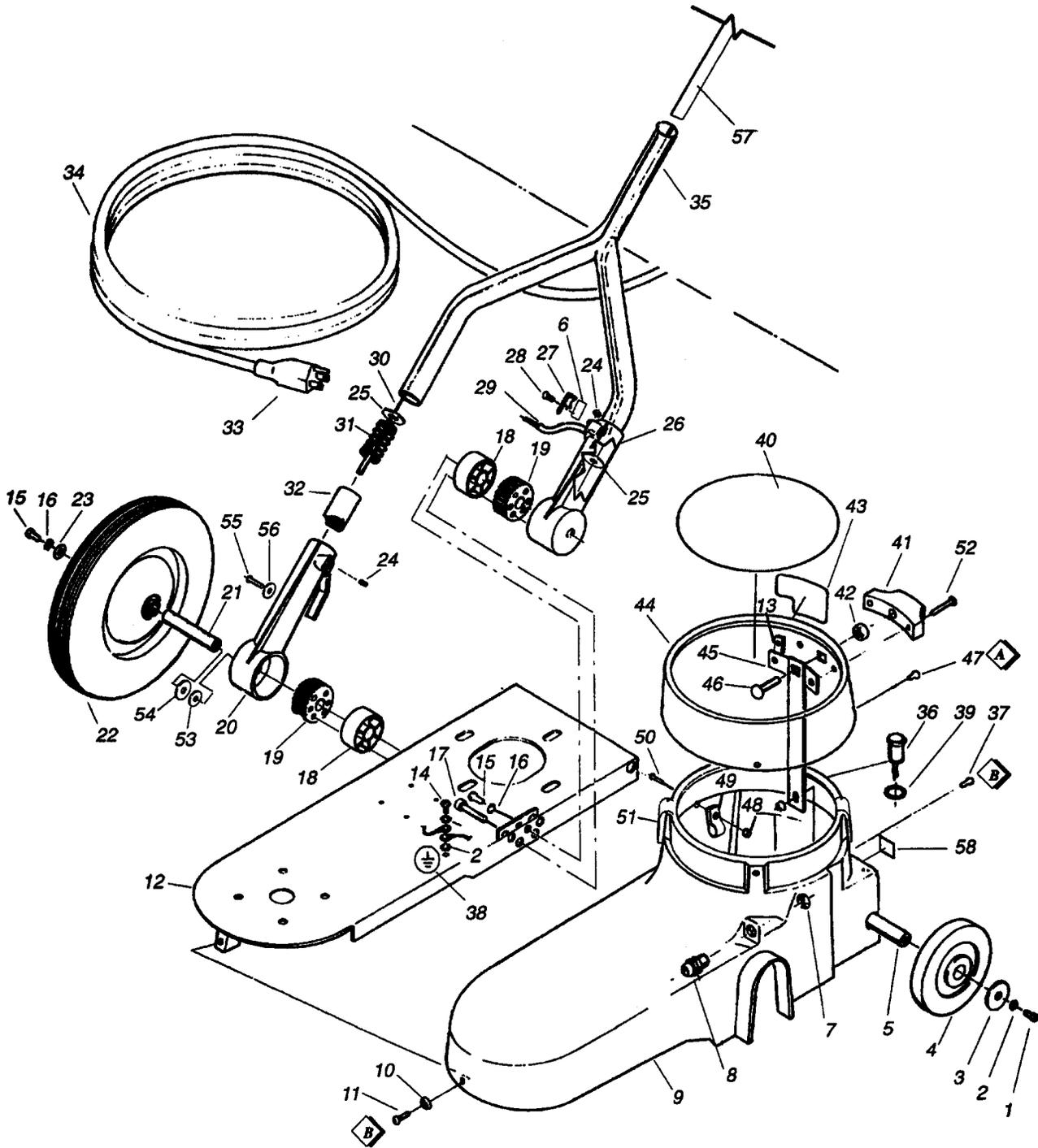
**MOTOR, FRAME and
DRIVER ASSEMBLY**



**MOTOR, FRAME and
DRIVER ASSEMBLY**

Ref	Qty	Part No.	Description	Serial No. From To	Notes
1		67162	Ring, 3/4 Ext snap		
2		09030	Bearing, .75x2.00lwr pulley		
3		64048	Pulley, Brush Driven		
4		09033	Bearing, 1.00x2.00upr pulley		
5		03049	Axle, Pad driver		
6		53539	Motor Asm, 115V		
7		70323	Screw, 10-32 x 1/4 PHTF		
8		73381	Screen, Motor		
9		34166	Frame, Main		
10		62241	Plate, Axle mounting		
11		70337	Screw, 5/16-18 x 3/4 HHTF		
12		70567	Screw, 3/8-16 x 5/8 WHZ bolt		
13		64053	Pulley, Motor		
14		11024	Belt, A46 drive		
15		62293	Plate, Belt guard		
16		70351	Screw, 10-32 x 3/8 HHTF		
17		73301	Shroud, Brush		
18		66122	Pad Driver		
19		20070	Clamp, 21 x .50W #332		
20		14560	Bumper, Brush shroud		
21		70328	Screw, 5/16-18 x 2" HHMS		
22		70233	Screw, #10 x 3/8 PH hi-lo		
23		41161	Holder, Centerlock syn. pad		
24		14610	Brush Set, 115V (not shown)		

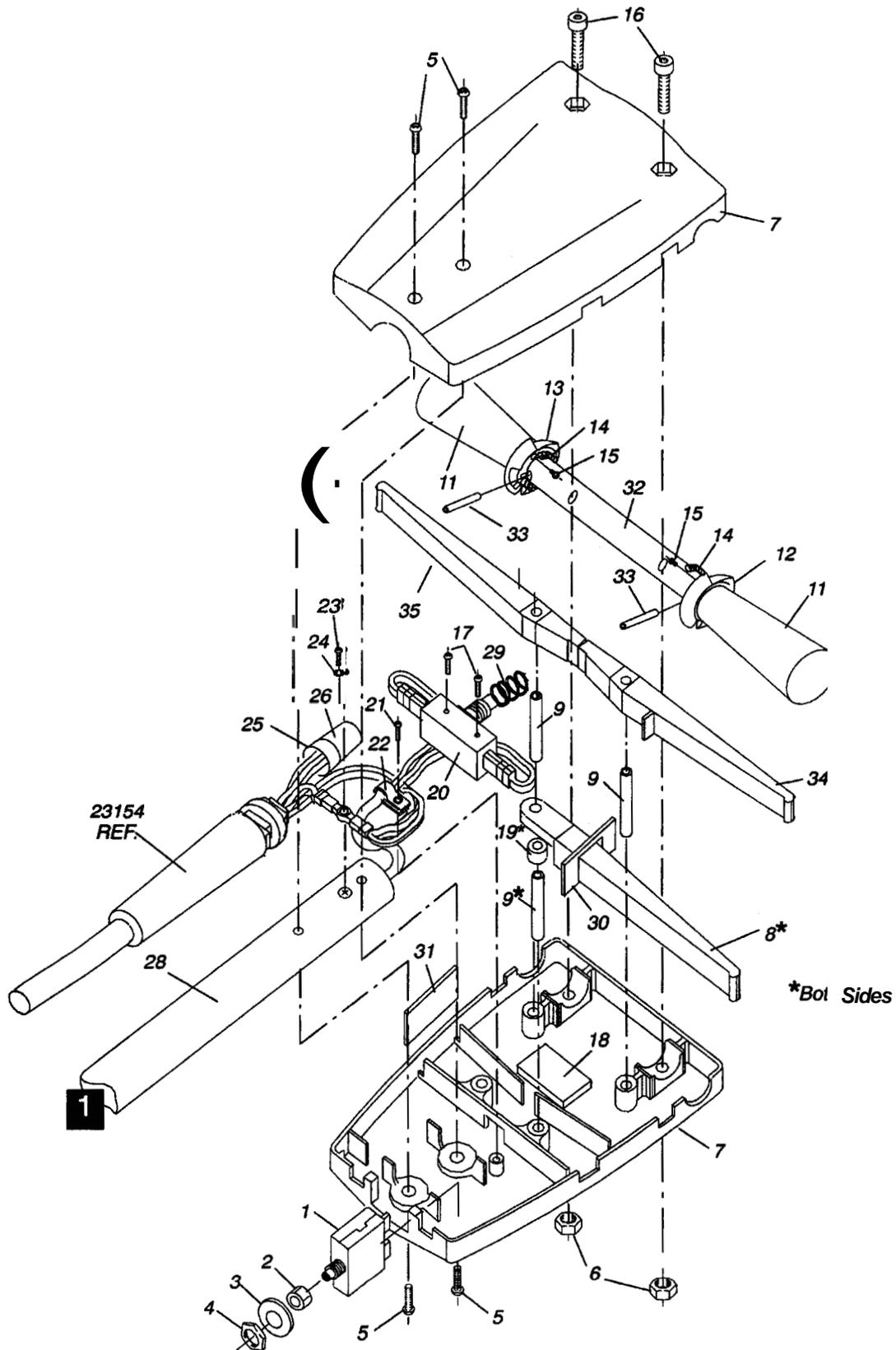
COVER AND LOWER HANDLE ASSEMBLY



COVER AND LOWER HANDLE ASSEMBLY PARTS LIST

Part	Qty	Part No.	Description	Serial No.		Notes
				From	To	
1		70088	Screw, 10-32 x 1/2 PHMS			
2		87016	Washer, #10 Star			
3		87093	Washer, #10 x 1.0			
4		89063	Wheel, 5 x 1 x 318			
5		03050	Axle, Rear Wheel			
6		73619	Spacer, .25 OD x .201 ID x .188			
8		73195	Strain Relief, 1/2 NPT			
9		27330	Cover, MD1500 Frame			
10		87004	Washer, #12 Dress			
11		70050	Screw, 10-32 x 3/4 OHMS			
12		34166	Frame, MD1500, Main			
13		57200	Nut, 10-24 Tinnerman			
14		70335	Screw, 10-32 x 1/2 PHTF Gm			
15		70020	Screw, 1/4-20 x 1/2 HHMS			
16		87025	Washer, 1/4 Star			
17		70320	Screw, 5/16-18 x 2" HHMS			
18		73398	Spacer, Handle			
19		36081	Gear, 40T - Handle Pivot			
20		41143	Handle Pivot w/ hook			
21		03054	Axle, Wheel			
22		89064	Wheel, 8 x .5			
23		87008	Washer, 1/4 ID x 1.25 OD			
24		70330	Set Screw, 5/16-18 x 1/2			
25		87086	Washer, M10 x 30 PLTD			
26		41205	Handle Pivot, no hook			
27		20069	Clamp, Cord			
28		70177	Screw, 10-32 x 1/2 FHMS			
29		88442	Wire Asm, 115V Handle			
30		27308	Cable, Handle Lock			
31		73307	Spring, Handle Lock Comp.			
32		51114	Lock, Handle Position			
33		26006	Cord End, 125V 15A Nema			
34		23199	Cord Set, 14/3 UL x 75' soft Ylw.	303247 -		
35		38138	Handle, MD1500 Y-shape Pol			
36		51116	Liaht Asm, 115V Brush Wear			
37		70351	Screw, 10-32 x 3/8 HHTF w/star			
38		50279	Label, ground symbol			
39		87101	Washer, 1/2 ID Spring			
40		50397	Label, MD1500 Lightning			
41		14574	Bumper, Motor Cover			
42		57111	Nut, 3/8-16 Hex			
43		50400	Label, Motor Brush Wear			
44		27309	Motor Cover			
45		14590	Bracket, Motor Cover			
46		70332	Screw, 3/16-16 x 2 Car. Bolt			
47		70086	Screw, 10-24 x 1/2 PHMS			
48		57106	Nut, 8-32 w/Star Washer			
49		20005	Clamp, 5/16 Plastic			
50		70243	Screw, 8-32 x 1/2 PHMS Blk.			
51		57028	Nut, 10-24 Tinnerman			
52		70336	Screw, 10-32 X 1 THMS			
53		87140	Washer, 1/2 ID x 3/4 OD Wave			
54		87136	Washer, .521 ID x .875 OD			
55		7006	Screw, 6-32 x 3/8 PPHMS			
56		8702	Washer, #6 lock ext star SS			
57		62264	Plate, divider			
58		50776	Label, Warning for Safety			

UPPER HANDLE ASSEMBLY



UPPER HANDLE ASSEMBLY PARTS LIST

REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	14944		BREAKER 16A 250VAC 50VDC		
2	27558		COLLAR, CIRCUIT BREAKER		
3	50649		LABEL, CIRCUIT BREAKER		
4	57024		NUT, 3/8-27 PANEL		
5	70384		SCR, 1/4-20 X 1/2 PHTR PLTD		
6	57006		NUT, 1/4-20 HEX PLTD		
7	41243		HOUSING, POL HANDLE BOTTOM		
8	51188		LEVER, HEIGHT POLISHER HANDLE		
9	66187		PIN, POL HANDLE		
10	76112		TERMINAL BLOCK, 3 POSITION		
11	36196		GRIP, POLISHER HANDLE		
12	51192		LOCK, SWITCH LT. POL HANDLE		
13	51191		LOCK, SWITCH RT. POL HANDLE		
14	73571		SPRING, HANDLE LOCK		
15	70242		SCR, 4-40 X 1/4 PHMS PLTD		
16	70451		SCR, 1/4-20 X 1.62 SHCS PLTD		
17	70455		SCR, #6-32 X 1.00 PPHTF PLTD		
18	73400		SPACER, UL SWITCH		
19	73402		SPACER, ADJ. HANDLE		
20	72123		SWITCH, 25A SPST 125-250V		
21	70452		SCR, 10-24 X 3/8 HHTR		
22	20054		CLAMP, 3/8 NYLON UL/CSA		
23	70335		SCR, 10-32 X 1/2 PHTR GRN/GRN		
24	87016		WASHER, #10 LOCK EXT STAR SS		
25	57003		NUT, YELLOW WIRE		
26	99627		ELECTRIC TAPE, 3/8 W/UL-CSA		
27	23154		CORD SET, 14/3 STD X 75' YELLOW		
28	38138		HANDLE, MD1500 Y-SHAPE POL.		
29	73572		SPRING, SWITCH HANDLE		
30	62251		PLATE, HANDLE LEVER		
31	62344		PLATE, LEVER PLUG		
32	78270		TUBE, HANDLE POLISHER		
33	66199		PIN, POLISHER HANDLE		
34	51187		LEVER, SWITCH POLISHER		



LIMITED WARRANTY

Windsor Industries, Inc. warrants new machines against defects in material and workmanship under normal use and service to the original purchaser. The warranty period is subject to the conditions stated below.

3 YEARS FOR PARTS AND 1 YEAR FOR SERVICE LABOR

Exceptions: Rotationally molded polyethylene tanks carry a 6 year parts and 1 year service labor warranty. **VERSAMATIC**® models carry a 3 year warranty on brush motors, vacuum motors, and belts, and a 1 year service labor warranty. **SENSOR**® models carry a 2 year warranty on vacuum motors and belts, and a 1 year service labor warranty. **Extractor** brush motors, pump motors, pc boards and electronics, vac motors (other than **VERSAMATIC**® and **SENSOR**®, pumps, and **FLEXSOL**™ diaphragms, all **RADIUS**™, all **ACCESS**™ and **TITAN**™1 carry a 1 year parts and service labor warranty. Propane equipment has a 1 year parts and service warranty. The **Onan**® engines have a 3 year manufacturers' warranty. The **Honda**® engines have a 2 year manufacturers' warranty. The engine warranty is administered through the engine manufacturer and must be repaired at an authorized service center.

Normal wear items including, but not limited to, belts, brushes, capacitors, carbon brushes, casters, clutches, cords, filters, finishes, gaskets, hoses, light bulbs, rectifiers, switches, squeegees, bearings, pulleys, relays, actuating cables, tires and wheels will be warranted for manufacturing defects for 90 days from the purchase date.

The warranty commences on the purchase date by the original end user from an authorized Windsor Agent, subject to proof of purchase. The Machine Registration Card must be completed and returned immediately at the time of purchase. If proof of purchase cannot be identified, the warranty start date is 90 days after date of sale to an authorized Windsor distributor. Parts replaced or repaired under warranty are guaranteed for the remainder of the original warranty period.

90 DAY WARRANTY EXTENSION AVAILABLE

Upon receipt of the Machine Registration Card, Windsor will extend the warranty period an additional 90 days from the purchase date. Does not include items warranted 90 days for manufacturing defects.

STATED WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

Any statutory implied warranties, including any warranty of merchantability or fitness for a particular purpose, are expressly limited to the duration of this written warranty. Windsor will not be liable for any other damages, including but not limited to indirect or special consequential damages arising out of or in connection with the furnishing; performance, use or inability to use the machine. This remedy shall be the exclusive remedy of the buyer.

This warranty shall not apply to: 1. damage in transit; 2. misuse or abuse (including the use of incompatible or corrosive chemicals or overloading of capacity); 3. failure due to lack of proper maintenance and care (including cleaning); 4. any design alterations performed by an organization not authorized or specified by Windsor; 5. batteries and chargers. 6. high pressure washing. 7. electrical components exposed to moisture.

If difficulty develops during the warranty period, contact the authorized Windsor Agent from whom the product was purchased. Windsor, Inc. may elect to require the return of components to validate a claim. Any defective part to be returned must be shipped freight pre-paid to an authorized Windsor Distributor/Service Center or to the Windsor factory.

USE OF PARTS NOT APPROVED BY WINDSOR, INC. WILL VOID ALL WARRANTIES.

This warranty is valid only for all products sold after July 1, 1995. A product sold before that date shall be covered by the limited Warranty in effect at the date of sale to the original purchaser.



WINDSOR INDUSTRIES, INC., 1351 W. Stanford Ave., Englewood, CO 80110 USA
Phone: 303-762-1800 Fax: 303-762-0817 Internet: www.windsorind.com