IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions 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. Use only as described in this manual. Use only manufacturer's recommended attachments.
2. Use indoors only. Do not use outdoors and do not expose to rain.
3. Machines can cause a fire when operated near flammable vapors or materials. Do not operate this machine near flammable fluids, dust, or vapors.
4. Do not handle the plug or machine with wet hands.
5. Do not leave the machine unattended. Unplug machine from outlet when not in use and before servicing.
6. Turn off all controls, before unplugging the machine.
7. Do not unplug machine by pulling on cord. To unplug, grasp the plug, not the cord.
8. Do not use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.
9. If the machine is not working properly, has been dropped, damaged, left outdoors, or dropped into water, return it to an Authorized service center.
10. 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.
11. Do not pull/run machine over cord. Keep cord away from heated surfaces.
12. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
13. Keep hair, loose clothing, fingers, and all parts of the body away from openings and moving parts.
14. Do not use machine as a step.
15. Maintenance and repairs must be done by qualified personnel.
16. To reduce the risk of fire, use only commercially available floor cleaners and waxes intended for machine application.

SAVE THESE INSTRUCTIONS
**INSPECTION**

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 hertz, 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 volt 50 hertz model is available.

**GROUNDING INSTRUCTIONS**

This machine 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 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 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 machine is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug illustrated in Fig. A. A temporary adapter that looks like the adapter illustrated in Figs. B and C may be used to connect this plug to a 2-pole receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter 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 adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

**OPERATING THE MACHINE**

The L1500-20 is a high speed floor polishing machine and should be operated in a straight line—forward and rearward—not side to side as you would a low speed polisher. Use the machine for polishing. Do not use the machine for wet scrubbing.

**CAUTION:** To prevent possible damage to the floor surface, always keep the machine moving when the pad is in contact with the floor. Do not lift up on the handle to apply pad pressure. Keep the wheels on the floor at all times.

**TO START THE MACHINE**

**CAUTION:** Because of the high starting torque of the machine make sure you hold the handle with both hands.

1. Plug machine into the power supply and check that the red indicator light (located on top of switch housing) is on.
2. Pull up on the adjusting lever and lower the handle to a comfortable working height. Release adjusting lever to lock handle in place.

**MACHINE PREPARATION**

**WARNING:** Always remove the power cord from the electrical outlet before installing or changing the polishing pad.

The drive pad is bolted to the machine. A threaded pad holder holds the polishing pad to the driver.

**CONTROLS**

To install polishing pad
1. With the handle locked in the upright position, tilt the machine back until the handle is resting on the floor exposing the drive pad.
2. Remove the pad holder by turning counterclockwise.
3. Put the polishing pad on the drive pad making sure the pad is centered. Install the pad holder by turning clockwise.

To put machine in "store" position—squeeze handle adjusting lever and fold main handle forward. Release adjusting lever to lock handle. Lift up on main handle to store machine.

**GROUNDING PIN**

(A) GROUNDED OUTLET

(B) GROUNDED OUTLET BOX

(C) ADAPTER

(D) METAL SCREW

With the pad properly installed return machine to upright position.
3. Two safety interlock thumb levers are located on top of switch housing handle.

4. Slide thumb levers outward and apply pressure to switch levers to activate main switch.

NOTE The switch levers can be operated independently of each other.

5. To stop the machine release the switch levers.

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 top of switch housing. Push the reset button to restart the machine. If the breaker trips again, correct the cause of overloading before proceeding. The most common cause is an excessively soiled polishing pad which should be turned over, cleaned or replaced.

6. At the end of daily cleaning cycle, put machine in "STORE" position. Do not let machine rest on pad.

MAINTENANCE INSTRUCTIONS FOR L1500-20

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.

SWITCH HOUSING

CAUTION: When replacing switches or other electrical parts make sure wire leads are connected to proper terminals. Refer to wiring diagram in service manual for assistance.

CIRCUIT BREAKER — INDICATOR LIGHT

1. Remove (4) screws from rear cover.

MAIN SWITCH — LEVERS

1. Remove screw at each end of handle.
2. Remove (6) screws from front housing.
3. Replace parts as needed.

BELT

1. Remove drive pad.
2. Remove (4) screws holding brush shroud and (4) screws holding rear belt cover.

DRIVE PAD

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

PAD DRIVER PULLEY

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

PULLEY BEARINGS

1. 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.

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.
MOTOR

The L1500-20 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. To access motor — remove (4) screws holding motor cover.
2. Remove rear transport wheels and axle.
3. Remove (2) screws holding motor shroud. (Located front and rear)
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.

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115 VOLT WIRING DIAGRAM

230 VOLT WIRING DIAGRAM
<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
<th>KEY PART NO.</th>
<th>KEY PART NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>70085</td>
<td>Scr. 10-32 x 1/2 PHMS</td>
<td>22</td>
<td>89084 Wheel, 3 x 5</td>
</tr>
<tr>
<td>87005</td>
<td>Washer, #10 Star</td>
<td>23</td>
<td>87008 Washer, 1/4 ID x 12 CO</td>
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<tr>
<td>87009</td>
<td>Washer, 3/8 x 1</td>
<td>24</td>
<td>87020 Set Scr. 5/16 x 112 Bone PI</td>
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<tr>
<td>89009</td>
<td>Wheel, 5 x 3 x 3/8 - Transport</td>
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<td>87006 Wheel, M10 x 30 PILO</td>
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<tr>
<td>80005</td>
<td>Axle Pivot</td>
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<td>41141 Handle Pivot</td>
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<tr>
<td>43005</td>
<td>Washer, 3/8 ID x 7/8 OD</td>
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<td>20669 Clamp, Cord</td>
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<td>67005</td>
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<td>70177 Scr. 10-32 x 1/2 PHMS</td>
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<tr>
<td>51719</td>
<td>Strap Relief, 1/2 x 7/16</td>
<td>29A</td>
<td>80442 Wire Asm, 115V Handle</td>
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<tr>
<td>9A</td>
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<td>9A</td>
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<tr>
<td>70000</td>
<td>Scr. 10-32 x 3/4 CHMS</td>
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<td>51078 Lock, Handle Position</td>
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<td>10016</td>
<td>Frame, 1/150</td>
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<tr>
<td>70055</td>
<td>Scr. 10-32 x 11/16 PHMS</td>
<td>34A</td>
<td>23130 Cord Set, 14 x 3 x 75 (115V)</td>
</tr>
<tr>
<td>87045</td>
<td>Washer, 1/4 Star</td>
<td>34B</td>
<td>23134 Cord Set, 14 x 3 x 112 (220-240V)</td>
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<tr>
<td>50005</td>
<td>Scr. 1/4-20 x 1/2 x 112</td>
<td>35</td>
<td>72121 Strap Relief (220-240V)</td>
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<tr>
<td>36085</td>
<td>Scr. 3/8-16 x 112 x 120</td>
<td>36</td>
<td>87052 Washer, 22 x 17 x 2.5 (220-240V)</td>
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<tr>
<td>70035</td>
<td>Scr. #8 x 3/4 x 112</td>
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<td>80234 Clamp, Cable</td>
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<td>73204</td>
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<td>50299 Label, Polished Warning</td>
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<td>35001</td>
<td>Gear, 40T Hamilton</td>
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<td>70054</td>
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<td>27348 Cover, Cord End (220-240V)</td>
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<tr>
<td>41001</td>
<td>Scr. 3/4-20 x 1/2 x 112</td>
<td>41</td>
<td>70142 Scr. M4 x 12 PHMS (220-240V)</td>
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</table>
Limited Warranty: Windsor Industries warrants that the Windsor machine covered by this warranty is free from defects in workmanship and materials under the following terms:

6 YEARS: On Rotationally Molded Polyethylene Tanks.

3 YEARS: On Traverse Drive Motors, Gear Units, AC Induction Polisher Motors, all Metal Chassis and Metal Frames.

1 YEAR: On all other parts which are not specifically referenced herein, plus an extra year (2 years total) on Rectified DC Polisher Motors and Scrubber Brush Motors.

The warranty period shall commence at the date of first purchase from an authorized Windsor distributor and applies to defective parts only, not to failure caused by abuse or normal wear.

Windsor will, at its option, repair or replace without charge, except for normal transportation costs, parts that fail under normal use and service when operated and maintained in accordance with the Owners Instruction Manual and the Preventive Maintenance Guide where applicable. This warranty shall apply to defects in material and workmanship only and does not apply to: a) transportation damages, b) alterations by unauthorized persons, c) misuse or abuse (including use of incompatible or corrosive chemicals or overloading of capacity), d) failure caused by lack of proper maintenance and cleaning, e) batteries and chargers which are warranted by the original manufacturer for one year, and f) normal wear on items such as belts, brushes, bearings, capacitors, carbon brushes, clutches, cords, filters, finishes, gaskets, hoses, pulleys, relays, rectifiers, and switches.

This warranty is in lieu of all warranties, expressed or implied, and releases Windsor from all other obligations and liabilities. It is applicable only in the U.S.A. and Canada. Windsor Industries is not responsible for costs of repairs performed by persons other than those specifically authorized by Windsor. This warranty does not apply to damage or loss of income due to malfunctioning of the machine. USE OF PARTS NOT APPROVED BY WINDSOR WILL VOID WARRANTY.

If a difficulty develops with this machine, contact the Dealer from whom you purchased the product.