

Mercury Floor Machines, Inc. New Equipment Warranty

Limited Warranty

Mercury Floor Machines, Inc. warrants new equipment against defects in material and workmanship under normal use and service to the original purchaser. 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. Mercury Floor Machines, Inc. 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 warranty shall be the exclusive remedy of the purchaser. The warranty period is subject to the conditions stated below.

5 Years - Motor and Chassis, 1 Year - Service Labor

Mercury Floor Machines, Inc. warrants electric motors and chassis components on this machine to be free from defects in material and workmanship, under normal use and service for five (5) years to the original purchaser. Parts replaced or repaired under this warranty are warranted for the remainder of the original warranty period. Service labor charges are covered for one (1) year from the date of purchase, when performed by a Mercury Floor Machines, Inc.-authorized service provider. Freight charges to and from this service provider will be covered for ninety (90) days from the purchase date. After this ninety (90) day period, these freight charges will be paid by the equipment owner. Travel expenses are not covered.

Wear Items on all Machines

Critical Wear Items - bearings, capacitors, clutches, pulleys, rectifiers, relays, switches, wheels, tires and casters are warranted for manufacturing defects for one (1) year from the purchase date.

Normal Wear Items - belts, brushes, bumpers, capacitors, carbon brushes, casters, clutches, cords, finishes, gaskets, rectifiers, switches, squeegees, bearings, pulleys, relays, actuating cables, wheels, and tires will be warranted for manufacturing defects for ninety (90) days from the purchase date.

All warranties of motors and associated components will be voided: if the machine is used as a floor sander; if the machine is serviced by anyone other than a Mercury Floor Machines, Inc.-authorized service provider; if the machine is mechanically modified; if a 2000 RPM model is operating without the front wheel assembly attached; if a machine is operated when not operating properly; or if the machine is misused or abused.

The warranty starts on the purchase date by the original purchaser from Mercury Floor Machines, Inc. 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 ninety (90) days after the inventory stocking date at the Mercury Floor Machines, Inc. warehouse.



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Ultra D.C. High-Speed Burnisher

Safety, Operation and Maintenance Manual with Parts List

Please read before use!

1.5 HP
1170, 1500 or 2000 RPM

REGISTER
YOUR
MACHINE
ONLINE!



19", 20" and 21" Apron Sizes

5 Apron Sizes

Fully Adjustable

Balanced Design

All Metal Chassis

Quiet Motor

Safe & Easy to Use



Important Information and Safety Instructions

Register your Machine at mercuryfloormachines.com/registration.aspx

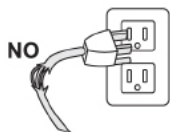
Serial No: _____

1.0 Safe Operating Conditions

READ THIS MANUAL BEFORE USING BURNISHER. KNOW THE PROPER OPERATION, CORRECT APPLICATIONS AND THE LIMITATIONS OF THIS EQUIPMENT **BEFORE** USE.

Reduce the Risk of Fire, Electric Shock or Injury:

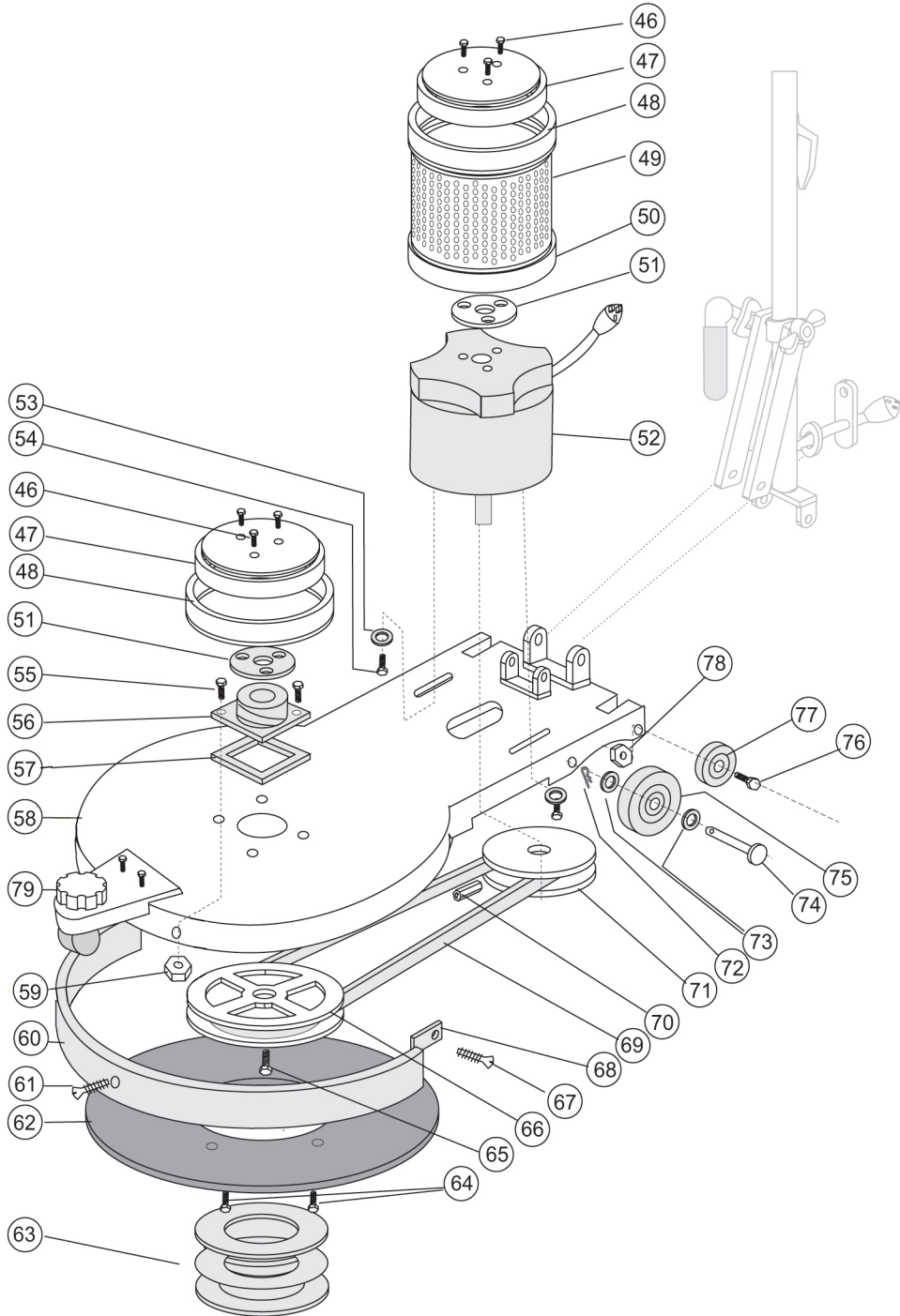
- This burnisher is designed for indoor use only. Do not use outdoors. Do not expose to rain.
- Do not wash the motor with flowing water. If the motor gets wet, seek authorized service.
- Keep the vents on this air-cooled motor free from debris. Do not operate with the motor covered or with vents blocked. Do not use this machine as a floor sander.
- Never operate this machine near flammable dusts, liquids or vapors. Never use flammable solvents as a cleaning agent. Engine sparks and operating heat can cause fire.
- Never handle electrical equipment with wet hands. Never operate this machine with bare feet.
- Unplug the machine when not in use and when servicing the equipment. To unplug, grasp the plug not the cord.
- Do not operate a burnisher with damaged handle controls, cord or plug. If the equipment is not performing properly, seek repair from a qualified service supplier.
- This machine is constructed with electrical grounding at the plug. Operate only when connected to a properly grounded outlet. See section 1.2 for grounding details.
- Prevent electrical cord abuse. Do not close a door upon the cord, drive equipment over it, or run the floor machine over it. Do not expose the cord to hot surfaces. Do not lift, pull or carry this burnisher by the cord.
- Never operate the machine over sharp objects that can be thrown out and harm the operator and damage the floor. Sweep hard floors before scrubbing or buffing. Vacuum clean carpets before shampooing or bonnet cleaning.
- Train your staff in proper use of this machine.



8.0 Machine Parts List

Drawing No.	Description	Part No.	Qty.
46	Drip Cap Mount Screw	B-151	6
47	66 Fr. Drip Cap Cover	M-242	2
48	66 Fr. Drip Cap Cover Bumper - Yellow	M-239-Y	2
49	UHS Motor Screen	SCR-01	1
50	UHS Motor Screen Bumper - Yellow	M-238-Y	1
51	Cork Drip Cap Gasket	M-248	2
52	UHS 1.5 HP Motor Only	MOTOR-DC-IMP	1
53	Washer	B-28	2
54	Motor Mount Bolt for UHS Motor	B-143	2
55	Bearing Block Assembly Mount Bolt	B-144	4
56	Bearing Block Assembly	BBA-1	1
57	Bearing Block Gasket	B-145	1
58A	Base Casting 19"	A-131	1
58B	Base Casting 20"	A-132	1
58C	Base Casting 21"	A-132	1
59	Motor Mount Lock Nut	B-150	4
60A	Bumper Stock for 19"	BUMPER STOCK	50"
60B	Bumper Stock for 20" or 21"	BUMPER STOCK	56"
61	Ground Wire Screw	B-68	3
62A	Floppy Disk Driver 19"	DC-18	1
62B	Floppy Disk Driver 20"	DC-20	1
62C	Floppy Disk Driver 21"	DC-20	1
63	Big Mouth Blue Retainer	PR7-ABL	1
64	Screw	B-95	4
65	Allen Head Screw	B-149	1
66	Pulley Driver	PD-1	1
67	Bumper Screw	B-68	1
68A	Bumper Strap for 19"	BUMPER STRAP	56"
68B	Bumper Strap for 20" or 21"	BUMPER STRAP	62"
69A	Drive Belt DC-1500 and 1170	DB-2	1
69B	Drive Belt DC-2000	DB-1	1
70	Allen Head Set Screw For PD	B-149	1
71A	Pulley To Fit Motor 1500 RPM DC	PM-3	1
71B	Pulley To Fit Motor 1170 RPM DC	PM-2	1
71C	Pulley To Fit Motor 2000 RPM DC	PM-1	1
72	Cotter Pin Wheel Axel	B-142	2
73	Spring Washer	B-51	4
74	Wheel Axel	B-16	2
75	6" Operating Wheel	M-250	2
76	Transport Wheel Axel Bolt	B-26	2
77	4" Transport Wheel	M-209	2
78	Lock Nut	B-77	2
79	Front Wheel Assembly	FCA-1	1

7.0 Machine Schematic Drawing



1.1 Electrical Power

This burnisher operates on a 13 amp nominal 115 V, 60 Hz, A.C. power circuit. (Motors may be custom wired at the factory for 220 V, 50 Hz international operation). The amp, hertz and voltage ratings are listed on the motor spec label found on each burnisher. Using voltages above or below those indicated on the spec label will damage the motor. Always check your local voltage requirements.



1.2 Grounding Instructions

This burnisher must be grounded while in use to protect the operator from electrical shock. This machine is built with a 3-wire cord and a 3-prong grounding-type plug (Figure 1) to fit a properly grounded receptacle.

Before using this burnisher, make sure a properly grounded, 3-hole electrical outlet is available. If not available, as in some older facilities, use an adaptor for connecting a 3-prong plug to a 2-prong receptacle (Figure 2) to ground the outlet chassis.

IMPORTANT: This adaptor may not be used in Canada.

IMPORTANT: Never cut off the grounding prong for use in a 2-prong outlet. By doing so, you have cut off your protection from electrical shock.

Never assume that all 3-hole outlets are properly grounded. Check before use.

Never assume that an adaptor connection (as in Figure 2) is properly grounded. Check the outlet with a ground fault interrupter device which quickly indicated if a ground is connected. Correct a faulty grounding before proceeding.

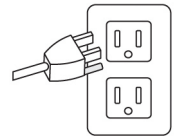


Figure 1

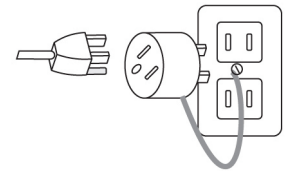


Figure 2

1.3 Extension Cords are Not Recommended

The burnisher is built with a 50 foot (15 M) safety cord which plugs directly into an approved outlet. Use of any extension cords is **NEVER RECOMMENDED**.

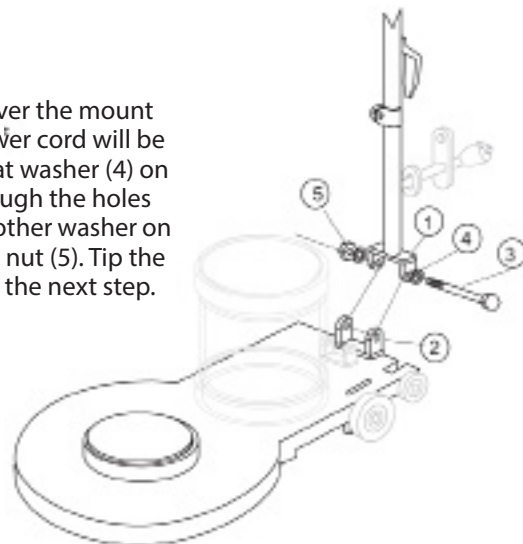
2.0 Mount the Handle

This burnisher is shipped from the factory with the handle unattached. You will need two 7/16" wrenches to complete the assembly.

Remove the handle and mounting hardware from its carton. Bolts, nuts, washers and the locking lever assembly are in the plastic bag attached to the handle.

1. Mount the handle to the chassis:

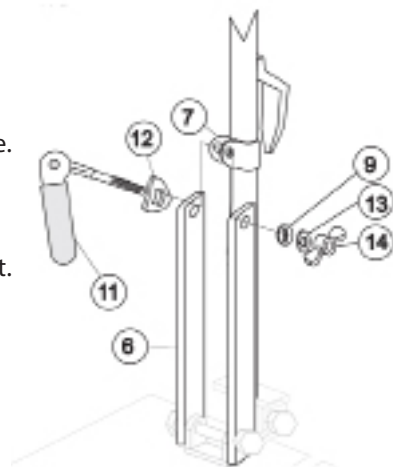
Align the handle with the yoke (1) over the mount (2) on the burnisher chassis. The power cord will be facing away from the motor. Place a flat washer (4) on a 3" bolt (3), then place the bolt through the holes in the yoke and the mount. Place another washer on the bolt and secure with the locking nut (5). Tip the handle back and out of your way for the next step.



2. Mount the support braces on the handle:

Tip the handle up. The handle mounting collar (7) is designed to slide freely up and down the handle tube, allowing the handle to be adjusted for the comfortable operation of all users. Line up the mounting collar with the upper holes in the two straight handle braces (6).

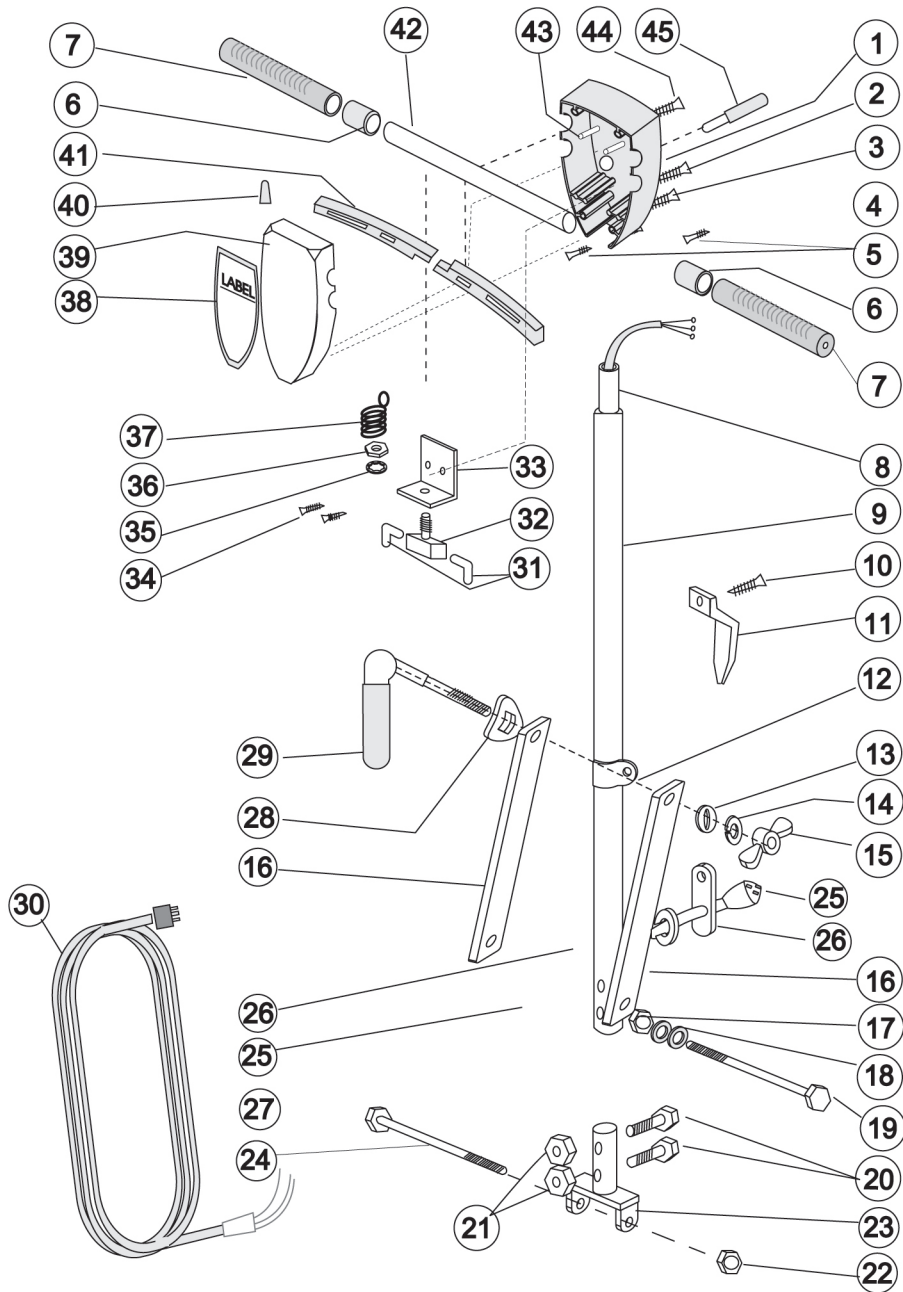
- Place the curved spacer (12) with a square hole onto the locking lever shaft (11). The curve must face the lever.
- From behind the machine, insert the shaft through the right handle brace (6), the mounting collar (7) and the left handle brace.
- Place a spacer (9) on the shaft.
- Place the split washer (13) on the shaft.
- Place the locking wing nut (14) on the shaft.
- Adjust the wing nut for tightness. When correctly installed, the collar slides easily when the cam-engineered locking lever is "up," but is firmly fixed when the lever is "down."



6.0 Handle Parts List

Drawing No.	Description	Part No.	Qty.
1	Switch Box Back Cover	A-104	1
2	Handle Tube Screw	B-23	2
3	Switch Box Closing Screws	B-21	4
4	Strain Relief Clip	M-213	1
5	Switch Plate Screw	B-68	2
6	Rubber Spacer - Black	M-218-B	2
7	Hand Grip	M-218	2
8	Handle Tube Insert	M-247	1
9	Handle Tube Assembly	M-206	1
10	Cable Hook Screw	B-2	2
11	Cable Hook	A-164	1
12	Sliding Collar	A-111	1
13	Flat Washer	B-37	1
14	Split Washer	B-39	1
15	Cam Lock Wing Nut	B-25	1
16	Straight Brace	M-233	2
17	Stop Nut	B-10	1
18	Washer	B-28	2
19	Cap Screw	B-9	2
20	Yoke Tube Mount Bolt	B-18A	2
21	Tube Mounting Nut	B-19	2
22	Yoke	A-1001	1
23	Yoke Nut	B10	1
24	Yoke Bolt	B14	1
25	Handle Tube Cable	G-16	1
26	Black Rubber Cable Connector	M-249	1
27	Cable Grommet	B-63	1
28	Rectangular Hole Cam Washer	B-67	1
29	Cam Assembly	C-100	1
29A	Complete Cam Assembly Kit (Includes 1 each of Drawing Items #13, 14, 15, 28, 29)	CCA	1
30	50-Foot, 14/3-Gauge - Yellow	G-14-50	1
31	Insulated Flag Wire Connector	G-48	5
32	On/Off Switch and Plate Assembly	G-30-AB	1
33	Switch Mounting Plate	G-30-B	1
34	Ground Wire Screw	B-1	2
35	Int. Tooth Lock Washer	B-35	1
36	Flat Hex Nut	B-33	1
37	Trigger Return Spring	G-30-C-T057	1
38	Label - Switchbox		1
39	Switchbox Front	A-103	1
40	Wire Nut	G-47	1
41	Triggers	A-105	2
42	16" Crossbar	M-211-A	1
43	Trigger Pins	B-70	2
44	Cross Bar Screw	B-22	2
45	Safety Interlock Assembly	SIA-1	1

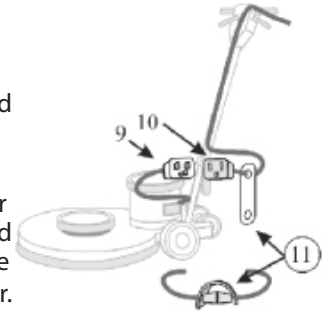
5.0 Handle Schematic Drawing



2.1 Attach the Power Cord

The triple-wire grounded power cord has been factory-installed into the handle tube. A flexible rubber cable connector (11) is used to secure the plug-in connections. The burnisher ships with this connector mounted on the cord coming out of the handle (10).

Stretch the connector and slip the male connector (9) (coming out of the motor housing) through the connector hole and then into the female connector. Now, plug the end of the 50-foot cord into a grounded power outlet. Squeeze the triggers on the handle and check for power to the motor.



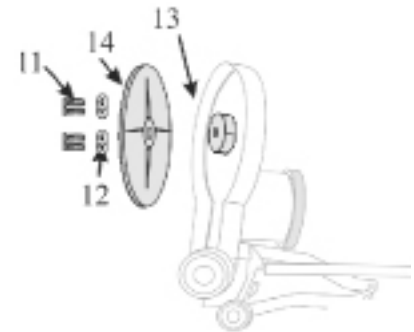
2.2 Inspect the Pad Driver

A flexible, high-speed pad driver has been bolted onto the burnishing machine and dynamically balanced. This driver is the connection between the burnisher and a disposable pad that burnishes the hard floor finish. If this molded plastic part ever becomes damaged or if the molded hooks are worn and cannot hold the pad, replace promptly.

Unplug the burnishing machine. Lock the handle in the "up" position and tip the machine back fully.

Remove the 4 mounting screws (11) and washers (12) from the drive hub (13).

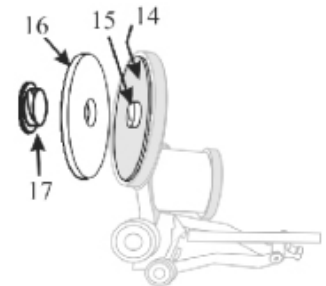
Place the new pad driver (14) onto the main drive pulley. Insert the mounting screws (11) through the washers (12) into the bolt hole. Tighten securely.



2.3 Install the Pad

The face (bottom) of the pad driver (14) is covered with small "hooks" that grab onto the pad (16). Every time you mount a new pad onto the pad driver, follow these steps:

- Unplug the burnishing machine. Lock the handle in the "up" position and tip the machine back fully.
- Pad Sizes: 20" diameter pad on the 20" and 21" machines. Mount a pad (16) over the male shoulder (15) on the pad driver. Make sure that the pad is centered on the driver.
- Insert the locking ring (17) through the center hole in the pad and into the shoulder. Tighten until the locking ring lies below the face of the pad. If the ring is not fully locked, it will scratch the floor.

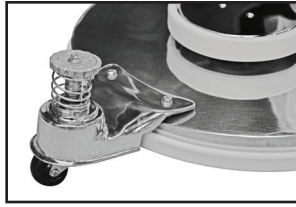


NEVER operate the burnisher without a pad.

NEVER operate the burnisher with a damaged pad or without a locking ring to hold the pad in place.

2.4 Adjust the Front Wheel Assembly on 2000 RPM Model

The 2000 RPM model is designed with a front wheel assembly that controls the down pressure that the pad applies to the floor. Raise the apron height to reduce the down pressure. Lower the apron height as the pad wears. The warranty on a 2000 RPM machine will be voided if the machine is operated without this wheel assembly in place and operating correctly.

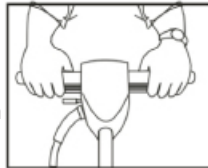
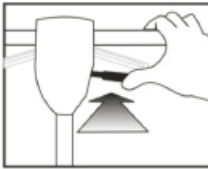
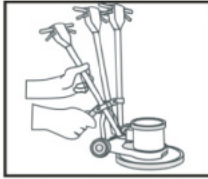


3.0 Operating Tips

- For indoor use only. Sweep abrasive soils before burnishing.
- While the pad driver is spinning, keep the burnisher moving to avoid “donut” burns on the floor.

To Start Operation:

- Unlock the handle by raising the locking lever.
- Lower the handle to a comfortable position, typically waist high.
- Relock the handle by pushing the lever down. NEVER OPERATE THE MACHINE WITH THE HANDLE UNLOCKED.
- This burnisher has a high torque motor.
- Hold the machine firmly with both hands when starting up.
- Push the red safety interlock switch forward to unlock the dual triggers.
- Squeeze both triggers to power the motor. Once power is on, either trigger will keep power to the motor. To stop, release both triggers.



3.1 To Store your Machine

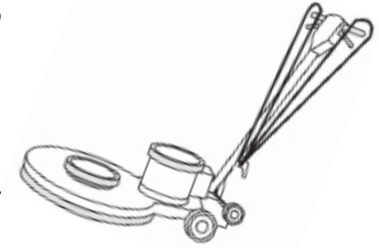
- Lock the handle in the “up” position. Tilt the machine back onto the transport wheels. Never store the machine with the pad on the ground.
- Wind the cord around the handles and the bottom cord hook.
- Wash pads and hang to dry.
- Inspect and maintain equipment on a regular schedule for best results.
- Check and clean pads after each operation. Remove soil and chemical buildup. Replace worn or damaged pads.
- Check the triggers and switches for proper operation.
- Use air pressure or vacuum to remove dust and debris from the motor vents.
- Report problems and repair promptly.



3.2 Transport

To transport this burnisher from the janitor’s closet to the work area:

- Lock the handle in the “up” position. Wind the cord around the handles and the bottom cord hook.
- Tip the machine back onto the transport wheels. Push or pull the machine by the handle, not by the cord or any other part of the machine. Travel carefully.



4.0 Troubleshooting

Never operate this burnisher when the equipment is not performing as expected or when any parts are visibly damaged. The cause and solution for some basic problems are described below. When repair is needed, take the equipment to an authorized repair service center.

4.1 Burnisher will not Run

- Circuit breakers are tripped in the building. Check and reset.
- Equipment is unplugged. Check plug wall and at machine base. Plug in.
- Power cord failure. Test with a working power cord. Lock the handle up and tip the motor back. Unplug the cord at the motor and plug the motor into your working power cord.
- IMPORTANT! THIS IS JUST FOR TESTING. When you do this, you have removed the safety handle controls from the circuit and you are sending power directly to the motor. If the motor now spins, the problem is in the cord of the handle assembly. Seek authorized repair service.
- If the motor still does not spin, the problem is either in the male connection at the motor base or in the motor. Seek authorized repair service.
- Motor sparks or smokes. Seek authorized repair service.

4.2 Electrical Shock to Operator

- Equipment wiring failure or electrical short in the machine. Seek authorized service.
- Poor grounding or no grounding. Test the outlet with a ground fault interrupter. Retain certified electrician to inspect and repair grounding. NEVER clip off the ground plug on your cord.
- Repeated circuit breaking. High amp draw and circuit breaking can be an electrical or mechanical problem. Seek authorized repair service.

4.3 High Vibration

- Pads are not centered on the pad driver. Tip machine back and re-center the pad.
- Uneven wear or warp to pad or brushes. Replace.
- Machine chassis is damaged by dropping. Replace.