

# High Speed Burnisher

## Burnisher

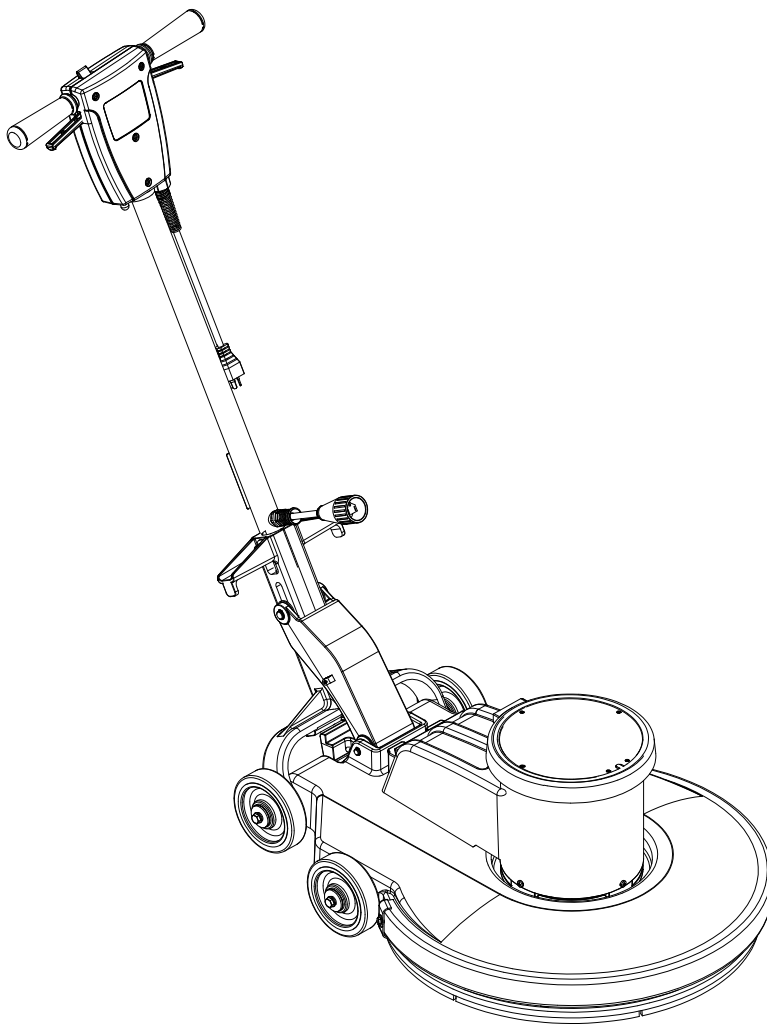
### Operating instructions (ENG)

**MODELS:**            **LB2000I**  
                              **10090200**

**LB2000IA**  
**10090210**

**UB2000F**  
**10090620**

**LB2000**  
**10090190**



From Serial Number (Ref No1\*)  
\*See Serial Number Page in Spare  
Parts List or call manufacturer



86402450-A 06/23/15

## Machine Data Label

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Model:	_____
Date of Purchase:	_____
Serial Number:	_____
Dealer:	_____
Address:	_____
Phone Number:	_____
Sales Representative:	_____

### Overview

The High Speed Burnisher is a mains powered, portable floor burnisher intended for commercial use. The appliance can be fitted with a variety of pads to perform various floor care functions. The appliance employs active dust control, and automatically adjusted pad pressure.

## Warranty Registration

Thank you for choosing our product. Warranty registration is quick and easy. Your registration will allow us to serve you better over the lifetime of the product.

To register your product go to:

<http://warranty.karcherna.com/warrantyregistration.aspx>

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## How To Use This Manual

This manual contains the following sections:

- How to Use This Manual
- Safety
- Operations
- Maintenance
- Suggested Spare Parts

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Sales Representative: \_\_\_\_\_

The model and serial number of your machine is located on the back of the machine.

The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Storage
- Maintenance
- Troubleshooting

*NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.*

*NOTE: The manual part number is located on the lower right corner of the front cover.*

# IMPORTANT SAFETY INSTRUCTIONS

**When using this machine, basic precaution must always be followed, including the following:  
READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.**

## **! WARNING:**

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

**Use only** indoors. Do not use outdoors or expose to rain.

**Use only** as described in this manual. Use only manufacturer's recommended components and attachments.

If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

**Do not** operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

**Machine can cause a fire** when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.

This machine is suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices for more than normal housekeeping purposes.

Maintenance and repairs **must be done** by qualified personnel.

**During operation**, attention shall be paid to other persons, especially children.

**The machine shall only** be operated by instructed and authorized persons.

**When leaving unattended**, unplug the machine.

**Do not** handle the plug or machine with wet hands.

**Do not** unplug machine by pulling on cord. To unplug, grasp the plug, not the cord.

**Do not** use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.

**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** pull/run machine over cord. **Keep** cord away from heated surfaces.

Connect to a **properly** grounded outlet. See Grounding Instructions.

If the supply cord is damaged it must be replaced by a special cord from an authorized service agent.

Unplug before cleaning or servicing.

Operational hazard may occur when running the machine over the supply cord.

This appliance has been designed for use with pads specified by the manufacturer. The fitting of other pads may affect its safety.

This machine is for dry use only and shall not be used or stored outdoors in wet conditions.

## READ AND SAVE THESE INSTRUCTIONS

# CONSIGNES DE SÉCURITÉ IMPORTANTES

Lors de l'utilisation de cette machine, des précautions de base doivent toujours être prises, y compris les précautions suivantes :  
**LIRE TOUTES LES INSTRUCTIONS AVANT D'UTILISER CETTE MACHINE.**

**⚠ AVERTISSEMENT:** Pour réduire le risque d'incendie, d'électrocution ou de blessure :

**N'utiliser cette machine** qu'en intérieur. Ne jamais l'utiliser à l'extérieur ou dans la pluie.

**N'utiliser cette machine** que comme décrit dans le présent manuel. N'utiliser que les composants et les accessoires conseillés par le fabricant.

Lorsque la machine ne **fonctionnant pas correctement**, a fait l'objet d'une chute ou d'une détérioration, a été laissée à l'extérieur, est tombée dans l'eau, la retourner au centre de service agréé.

**Ne pas opérer** la machine lorsque les conduits de ventilation sont bloqués. Débarrasser les débris des conduits, car ils peuvent réduire l'écoulement d'air.

**Cette machine peut provoquer un incendie** lorsqu'elle est utilisée près de vapeurs ou de matériaux inflammables. Ne pas l'utiliser près de liquides, de poussières ou de vapeurs inflammables.

Cette machine est destinée à un usage commercial. Elle est recommandée davantage pour les domaines hôtelier, scolaire, hospitalier, industriel ou pour les bureaux, les chaînes de magasin, que pour un usage domestique normal.

L'entretien et les réparations de la machine **doivent être effectuées** par un personnel qualifié.

**Durant la manoeuvre de la machine**, prendre garde aux personnes environnantes et notamment aux enfants.

**Cette machine ne doit être** manoeuvrée que par un personnel expérimenté et qualifié.

Lorsque vous laissez la machine sans surveillance, débranchez-la.

Ne pas toucher la fiche ou l'appareil lorsque vos mains sont humides.

Ne pas débrancher en tirant sur le cordon. Tirer plutôt la fiche.

Ne pas utiliser si le cordon ou la fiche est endommagé

Ne pas tirer soulever ou traîner l'appareil par le cordon. Ne pas utiliser le cordon comme une poignée, le coincer dans l'embrasure d'une porte ou l'appuyer contre des arêtes vives ou des coins.

Ne pas faire rouler l'appareil sur le cordon. Garder le cordon à l'écart des surfaces chaudes.

Cet appareil ne doit être connecter qu'a des prises ayant une sortie de terre. Se reporter aux instructions de mise à la terre.

Si le cordon d'alimentation est endommagé, il doit être remplacé par un cordon spécial d'un agent d'entretien autorisé.

Débranchez la machine avant de la nettoyer ou la réparer.

Un risque opérationnel est probable lors du fonctionnement de la machine avec une surcharge du cordon d'alimentation.

Cet appareil a été conçu pour être utilisé avec des coussins protecteurs spécifiés par le fabricant. L'utilisation d'autres coussins protecteurs peut affecter sa sécurité.

Cette machine est faite pour un usage à sec seulement et ne doit pas être utilisée ou rangée à l'extérieur dans des conditions humides.

## LIRE ET CONSERVER CES INSTRUCTIONS

The following symbols are used throughout this guide as indicated in their descriptions:

## **HAZARD INTENSITY LEVEL**

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:



**WARNING** - Hazards or unsafe practices which COULD result in severe personal injury or death.



**CAUTION** - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

### ***FOR SAFETY: To Identify actions which must be followed for safe operation of equipment.***

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

#### ***FOR SAFETY:***

**DO NOT OPERATE MACHINE:**

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects

#### ***WHEN SERVICING MACHINE:***

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use manufacturer approved replacement parts.

Les symboles ci-dessous sont utilisés à travers ce manuel comme illustré dans leurs descriptions :

### DEGRÉS DE RISQUES EN CAS DE DANGER

Il existe trois degrés de risques identifiés par les termes signalétiques –**AVERTISSEMENT** et **ATTENTION** et **POUR VOTRE SÉCURITÉ**. Le degré de risque est défini de la manière suivante

#### **⚠ AVERTISSEMENT:**

**AVERTISSEMENT** - Dangers ou méthodes dangereuses qui **POURRAIENT** provoquer de graves blessures ou entraîner la mort.

#### **⚠ ATTENTION:**

**ATTENTION** - Dangers ou méthodes dangereuses qui pourraient provoquer des blessures légères ou une détérioration du produit ou des biens immobiliers.

***POUR VOTRE SÉCURITÉ : ce signe permet d'identifier les mesures de précaution à prendre pour assurer un bon fonctionnement du matériel.***

Rendre compte immédiatement d'une défaillance ou d'une détérioration de la machine. Ne pas utiliser la machine si celle-ci ne fonctionne pas correctement. Lire soigneusement les informations ci-dessous signalant certains dangers potentiels pour l'opérateur de la machine. L'opérateur doit être absolument au courant de ces dangers potentiels. Localiser tous les dispositifs de sécurité sur la machine. Il est conseillé de prendre les mesures nécessaires pour former le personnel opérateur.

#### ***POUR VOTRE SÉCURITÉ :***

**NE PAS MANOEUVRER LA MACHINE :**

Lorsqu'on n'est pas expérimenté ou qualifié.

Lorsque le guide d'utilisation n'est pas été lu ou compris.

Dans des zones inflammables ou explosives.

Dans des zones où des objets peuvent tomber.

#### ***LORS DE L'ENTRETIEN DE LA MACHINE :***

**Éviter les parties amovibles. Ne pas porter de vêtements amples, tels que des vestes, des chemises ou des vêtements avec manches lors de l'utilisation de la machine. Utiliser les pièces détachées homologuées.**

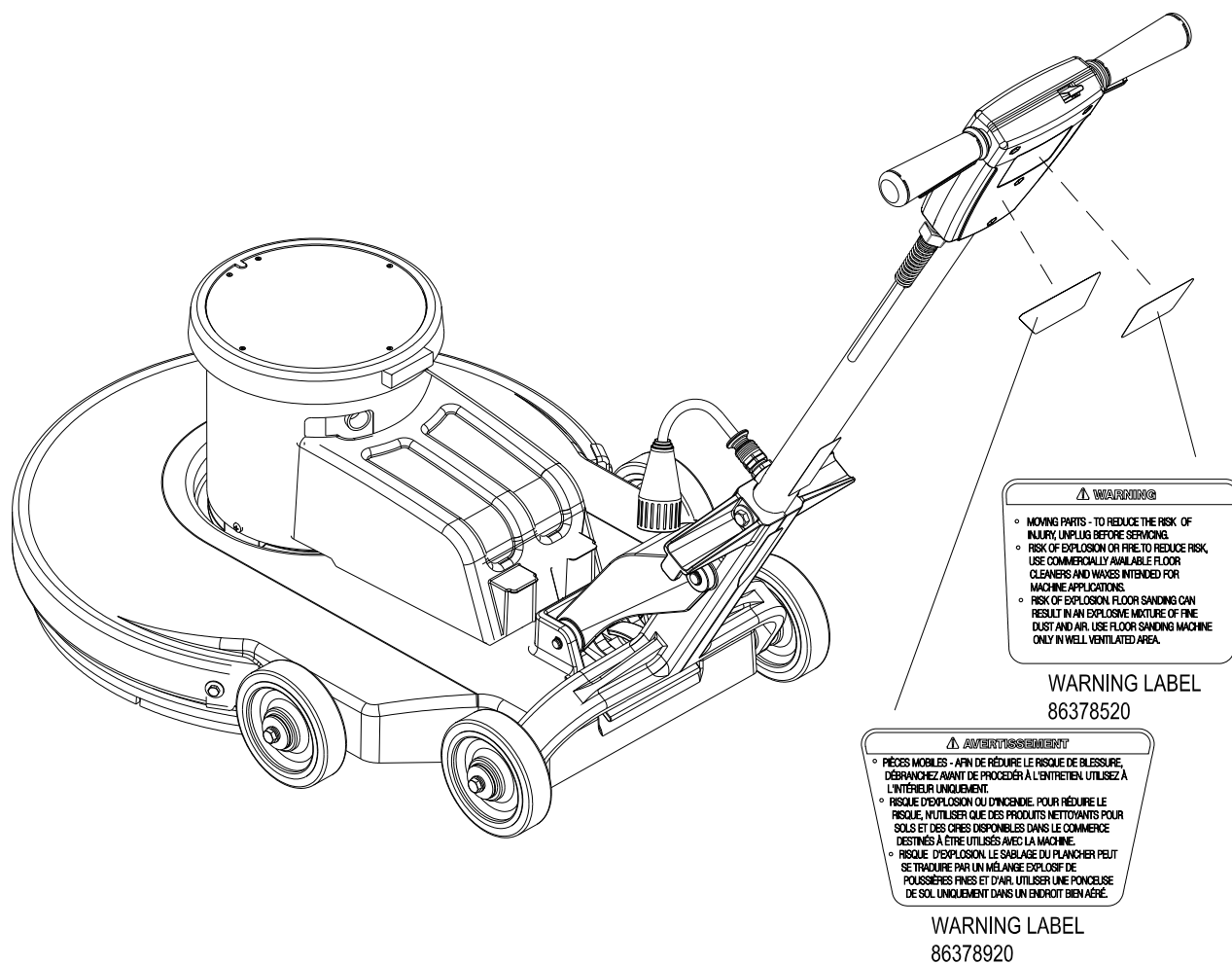


## Safety Labels

*NOTE: These drawings indicate the location of safety labels on the machine. If at any time the labels become illegible, promptly replace them.*

## Emplacement De L'étiquette De Sécurité

*NOTE: REMARQUE: Ces dessins indiquent l'emplacement des étiquettes de sécurité sur la machine. Si, à tout moment, les étiquettes deviennent illisibles, contactez votre représentant autorisé pour un remplacement rapide.*



## Safety

### Grounding Instructions - 120v

#### THIS PRODUCT IS FOR COMMERCIAL USE ONLY.

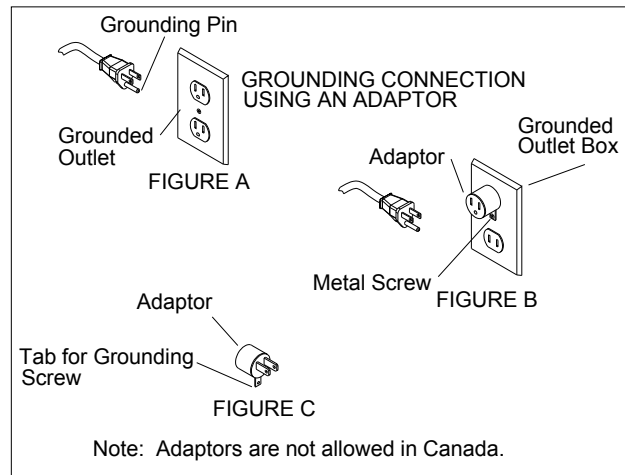
#### Electrical:

In the USA this machine operates on a 15 amp nominal 120V, 60 hz, A.C. power circuit. The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

#### 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.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig. 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 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.



#### **! 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.**

#### **! AVERTISSEMENT:**

**Le raccordement incorrect du conducteur de terre d'équipement peut entraîner des risques d'électrocution. Vérifiez auprès d'un électricien qualifié ou d'un responsable de l'entretien si vous avez quelque doute que ce soit quant au raccordement à la terre de votre prise murale. Ne modifiez pas la fiche fournie avec l'appareil: si elle ne correspond pas à la prise murale, faites installer une prise adéquate par un électricien qualifié.**

## Grounding Instructions - 230v

**THIS PRODUCT IS FOR COMMERCIAL USE ONLY.**

### **Electrical:**

The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

### **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 50 feet (15.5m) in length.

### **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.**

## **⚠ AVERTISSEMENT:**

**Le raccordement incorrect du conducteur de terre d'équipement peut entraîner des risques d'électrocution. Vérifiez auprès d'un électricien qualifié ou d'un responsable de l'entretien si vous avez quelque doute que ce soit quant au raccordement à la terre de votre prise murale. Ne modifiez pas la fiche fournie avec l'appareil: si elle ne correspond pas à la prise murale, faites installer une prise adéquate par un électricien qualifié.**

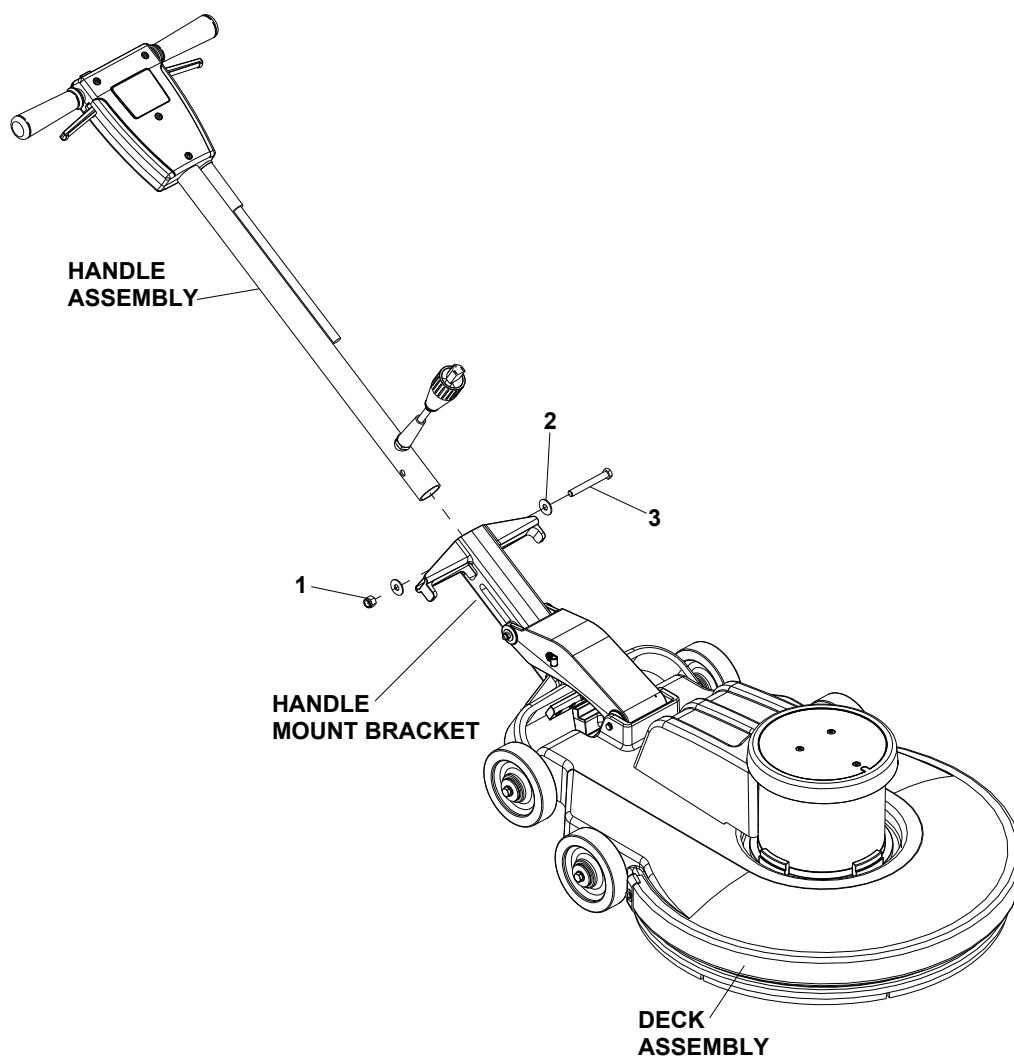
## Operations

### Technical Specifications

ITEM	DIMENSION/CAPACITY
Construction	Heavy-duty die cast aluminum deck with heavy-duty rubber bumper, tubular steel self adjusting handle with die cast aluminum handle housing.
Motor	1.5 hp
Transmission	Direct drive from motor shaft.
Pad speed	2000 rpm
Electrical system:	
LB2000I, LB2000IA	230 volts, 50Hz
LB2000, UB2000F	115 volts, 60Hz
Cable	75' [22.9 m]
Switches	Dual levers with safety lock.
Pad Holder	Æ20" [50.8 cm] flexible disc
Wheels	Four Æ5" [Æ12.7 cm], 1.25" [3.2 cm] wide, non-marking tread.
Handle	Æ1.5" [Æ3.8 cm] tubular steel, self adjusting handle consistently maintains full contact with the floor, and easy to use thumb activated safety lock.
Dimensions (L x W x H)	32" [81.3 cm] X 23.9" [60.2 cm] X 48.4" [122.9 cm]
Pad size (See note)	20" diameter x 1" thick

*NOTE: Always use a pad, which has been designed for electric ultra high speed burnishing of at least 2000 rpm.*

The sound pressure level at the operator's ear was measured to be 70 dBA. This was a nearfield, broad-band measurement taken in a typical industrial environment on a tile floor. This appliance contains no possible source of impact noise. The instantaneous sound pressure level is below 63 Pa.



## Handle Installation

The machine is shipped with handle unassembled.

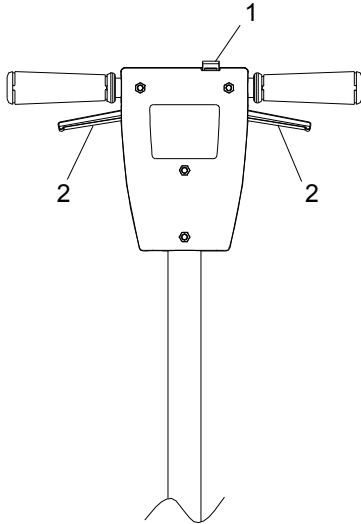
Follow these steps for installation:

1. Remove handle and deck assembly from carton.
2. Remove bolt (item 3), washers (item 2), and nut (item 1) from deck assembly.
3. Install Handle Assembly as shown.
4. Slide Bolt (item 3) through, washers (item 2), Handle Mount Brackets and Handle Assembly as shown. Tighten bolt (item 3) and nut (item 1) until the handle cannot twist in the mount bracket (45-50 foot pounds).
5. Check handle for movement up and down.
6. Plug cord into handle cord receptacle.

## Operations

### Controls

1. Safety Lock – Prevents unintended operation of the machine.
2. Switch Levers – Turns machine on/off.



2. Plug the machine into a wall outlet as described in the grounding instructions.
3. Release latch, lower the handle and move into position.
4. Push the safety lock forward, unlocking the switch levers.
5. With the safety lock forward, squeeze one or both of the switch levers, turning the machine on. (These levers can be operated independently of each other). The safety lock will not re-engage until both levers are released.
6. To stop the machine, release the switch levers.
7. Do not let machine rest on pad. When finished with the machine, return handle to the storage position.

*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 on the handle. Push the reset button to restart the machine. If the breaker trips again, correct the cause of overloading before proceeding.*

### Operations

#### **! CAUTION:**

For indoor use only.

#### **! ATTENTION:**

Pour utilisation à l'intérieur seulement.

#### **! WARNING:**

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

#### **! AVERTISSEMENT:**

Couple de démarrage élevé. Tenez la machine fermement à deux mains.

#### **! WARNING:**

High starting torque. Hold machine firmly with both hands.

#### **! AVERTISSEMENT:**

Couple de démarrage élevé. Tenez la machine fermement à deux mains.

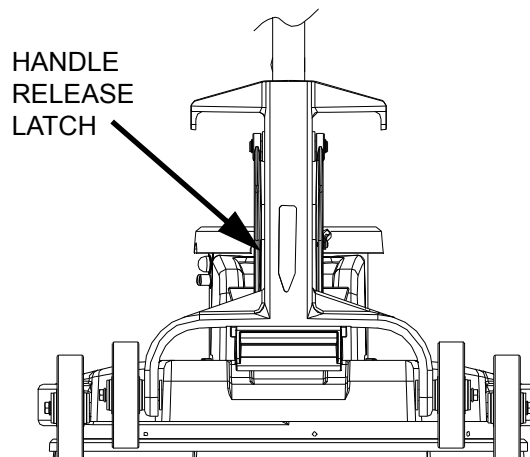
1. Ensure that the pad driver is in good shape. Install or change pad if necessary.

### Maintenance

1. 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.

### Pad Installation

1. Lay machine back, exposing the under side.
2. Remove center lock by turning counter-clockwise.
3. Ensure pad is centered on pad driver. Pull pad to edge of pad driver in several directions to check for proper engagement.
4. Replace center lock by turning clockwise firmly compressing the center of the pad.



**Machine Troubleshooting**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Machine will not run	Tripped circuit breaker	Reset
	Circuit breaker tripped in building.	Check and reset
	Fuse in motor is blown	Replace CAUTION: To reduce the risk of electrical shock, unplug the machine before opening fuse holder. Fuse will only open under extreme conditions. Investigate cause before replacing.
	Power switch failure	Test switch for continuity and replace if necessary.
	Faulty power cord	Replace
Electrical shock	Equipment not grounded	Follow grounding instructions exactly.
	Receptacle not grounded	Have an electrician inspect building's wiring.
	Internal wiring problem	Ensure that the machine wiring matches the appropriate wiring diagram. Replace any wires or components, which are short-circuiting.
Repeated circuit breaker tripping	Mechanical problem	Higher amp draws indicate a mechanical problem; find the problem before using the machine.
	Faulty circuit breaker	Test circuit for continuity. Replace circuit breaker if necessary.
Excessive vibration	Pad not centered	Re-center pad.
	Damaged or unevenly worn pad.	Replace pad. Do not rest machine on pad when not in use.
	Damaged pad driver.	Replace.

## **Maintenance**

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### **Service Schedule**

<b>MAINTENANCE</b>	<b>DAILY</b>	<b>MONTHLY</b>
Check pad wear to prevent buildup of chemicals	*	
Check pad driver system for damage	*	
Check handles, switches, and knobs for damage	*	
Store with pad off the floor	*	
Check all bearings for noise		*
Check skirt/bumpers for damage and replace as necessary		*
Check overall performance of machine		*



**Suggested Spare Parts**

<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>SERIAL NO. FROM</b>	<b>NOTES:</b>
86224740	SPRING, EXT .5OD X 3.5L		
86224750	SPRING, COMP .48OD X .91L		
86223460	RECTIFIER, 50A 1000V BRIDGE		
86003660	FUSE		
86003670	FUSE HOLDER		
86001390	BAG, DUST (PACKAGE OF 10 BAGS)		
86216230	BRUSH, STRIP (PACKAGE OF 6)		
86001820	BRUSH SET		120V
86001720	BRUSH SET (SET OF 4)		230V
86222470	PAD DRIVER, 20 INCH BURNISHER		
86216600	CAP, EXTRUSION		
86216270	BUMPER, EXTRUSION		