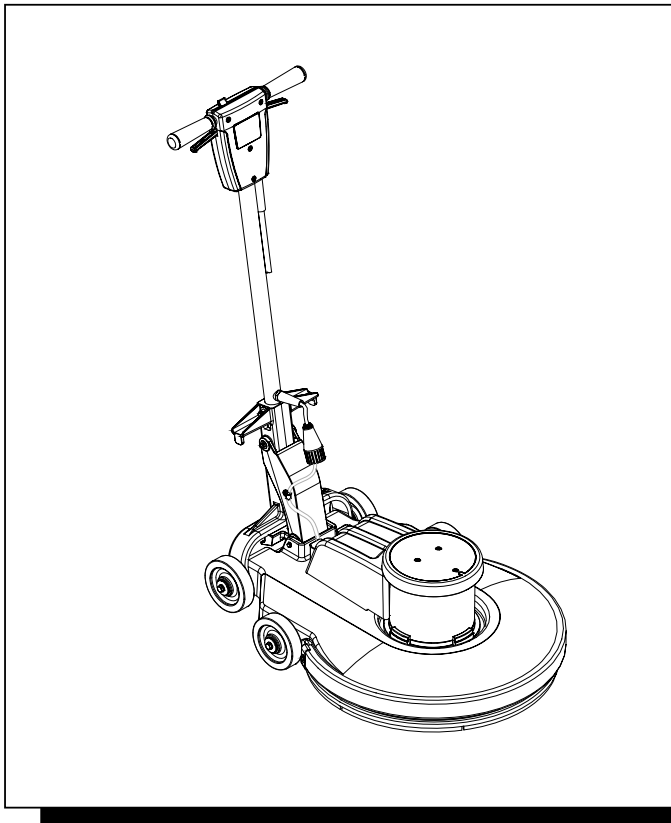




HIGH SPEED BURNISHER



Operating Instructions (ENG)

MODELS: LB2000
10090190

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



Read these instructions before using the machine

MACHINE DATA LOG/OVERVIEW

MODEL _____

DATE OF PURCHASE _____

SERIAL NUMBER _____

YOUR DEALER

Name: _____

Address: _____

Phone Number: _____

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HOW TO USE THIS MANUAL

This manual contains the following sections:

- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

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 Windsor 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 _____
SALES REPRESENTATIVE # _____
DEALER NAME _____
OPERATIONS GUIDE NUMBER _____
PUBLISHED _____

The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards is identified that could result in product or 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.

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **PRV NO.** – reference No.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **SERIAL NO. FROM** – column indicates the first machine the part number is applicable to. When the machine design has changed, this column will indicate serial number of applicable machine. The main illustration shows the most current design of the machine. The boxed illustrations show older designs.
- **NOTES** – column for information not noted by the other columns.

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 98# on the lower left corner of the front cover is the part number for this manual.

IMPORTANT SAFETY INSTRUCTIONS

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

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.



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.

SAVE THESE INSTRUCTIONS

HAZARD INTENSITY LEVEL

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

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

CAUTION

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 Windsor approved replacement parts.

GROUNDING INSTRUCTIONS

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.

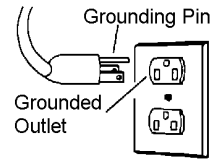


Fig. A

GROUNDING CONNECTION USING AN ADAPTOR

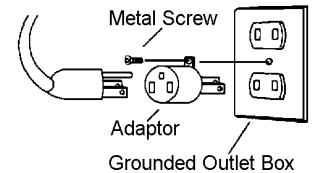


Fig. B

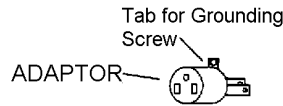


Fig. C

Note: Adaptors are not allowed in Canada.

⚠ 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.

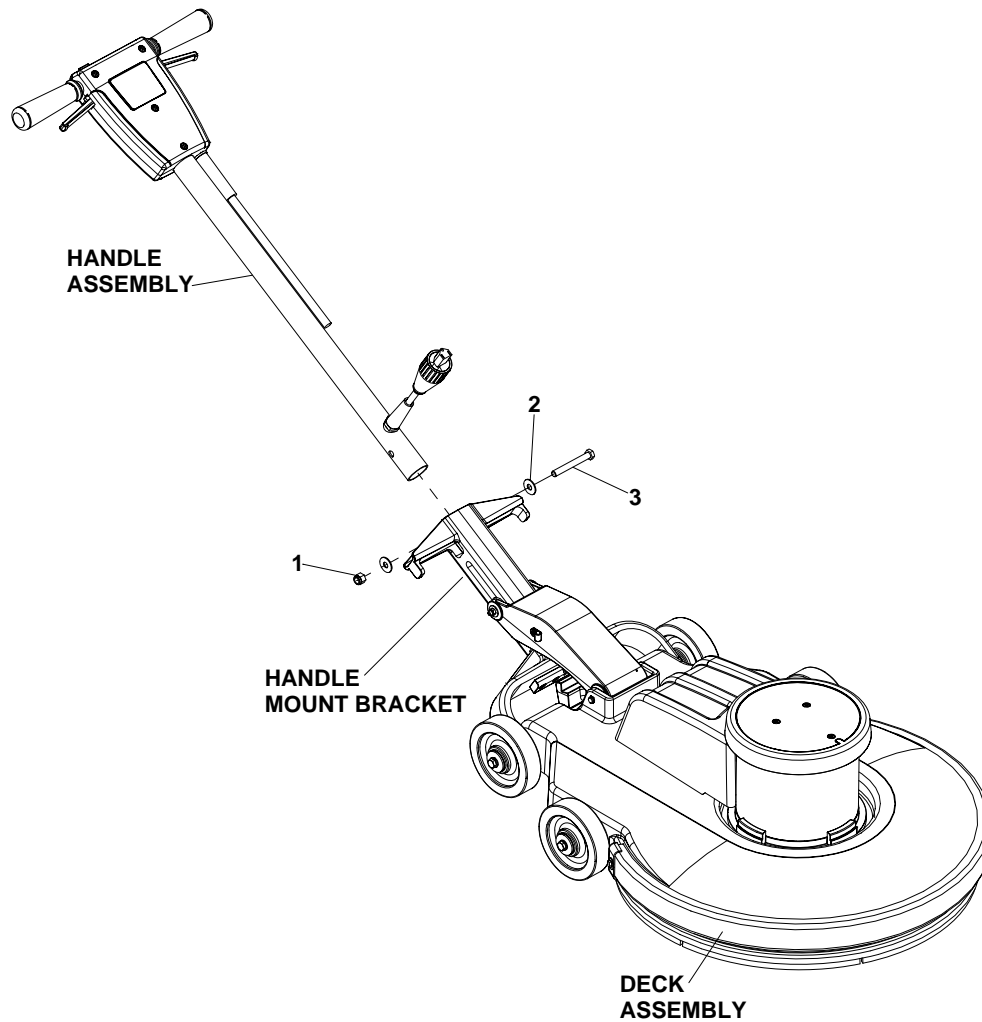
TECHNICAL SPECIFICATIONS

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 r.p.m.
Electrical system	115 volts, 60 Hz
Cable	75' [22,9 m], 14/3, built in cord wrap.
Switches	Dual levers with safety lock.
Pad Holder	Ø20" [50,8 cm] flexible disc
Wheels	Four Ø5" [Ø12,7 cm], 1.25" [3,2 cm] wide, non-marking tread.
Handle	Ø1.5" [Ø3,8 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]

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.

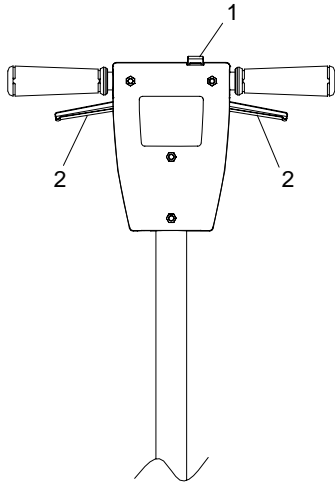
Follow these steps for installation:

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) thru, washers (item 2), Handle Mount Brackets and Handle Assembly as shown. Tighten bolt (item 3) and nut (item 1) until the handle can not twist in the mount bracket (45-50 foot pounds).
5. Check handle for movement up and down.
6. Plug cord into handle cord receptacle.

OPERATION

CONTROLS

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



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 side of the motor. Push the reset button to restart the machine. If the breaker trips again, correct the cause of overloading before proceeding.

DAILY 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.

OPERATION

CAUTION For indoor use only.

WARNING

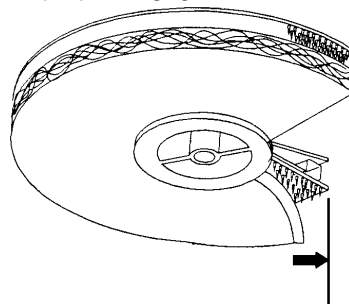
When using the pad, always keep the machine moving when in contact with the floor.

WARNING

High starting torque. Hold machine firmly with both hands.

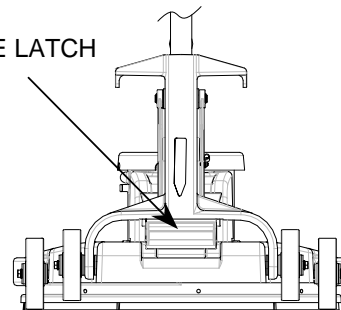
1. Ensure that the pad driver is in good shape. Install or change pad if necessary.
2. Plug the machine into a wall outlet as described in the grounding instructions.
3. Release latch, lower the handle and move into position.
4. Push the safety lock forward, unlocking the switch levers.
5. With the safety 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.

Ensure pad is center on pad driver. Pull pad to edge of pad driver in several directions to check for proper engagement.



NOTE: Use care when replacing center lock to prevent cross threading.

HANDLE
RELEASE LATCH

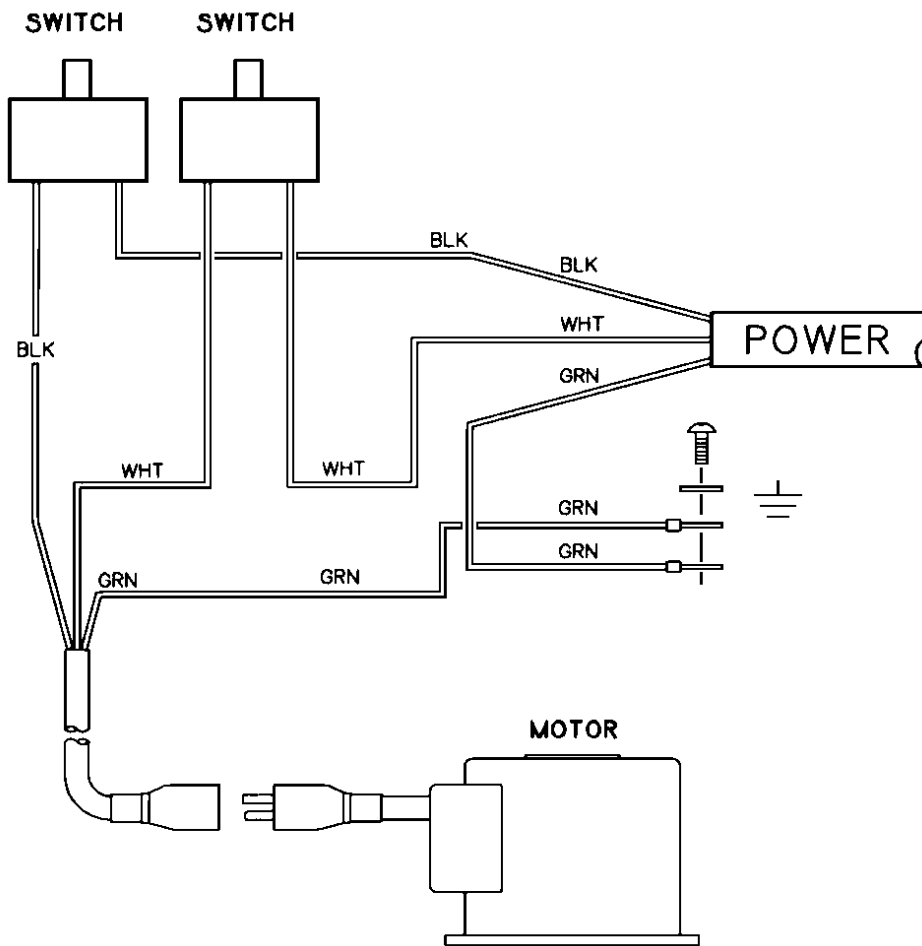


MACHINE TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
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.
Electrical shock	Faulty power cord	Replace
	Equipment not grounded	Follow grounding instructions exactly.
	Receptacle not grounded	Have an electrician inspect building's wiring.
Repeated circuit breaker tripping	Internal wiring problem	Ensure that the machine wiring matches the appropriate wiring diagram. Replace any wires or components which are short circuiting.
	Mechanical problem	Higher amp draws indicate a mechanical problem, find the problem before using the machine.
Excessive vibration	Faulty circuit breaker	Test circuit for continuity. Replace circuit breaker if necessary.
	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.

WIRING DIAGRAM / SERVICE SCHEDULE

115V Diagram Single Speed

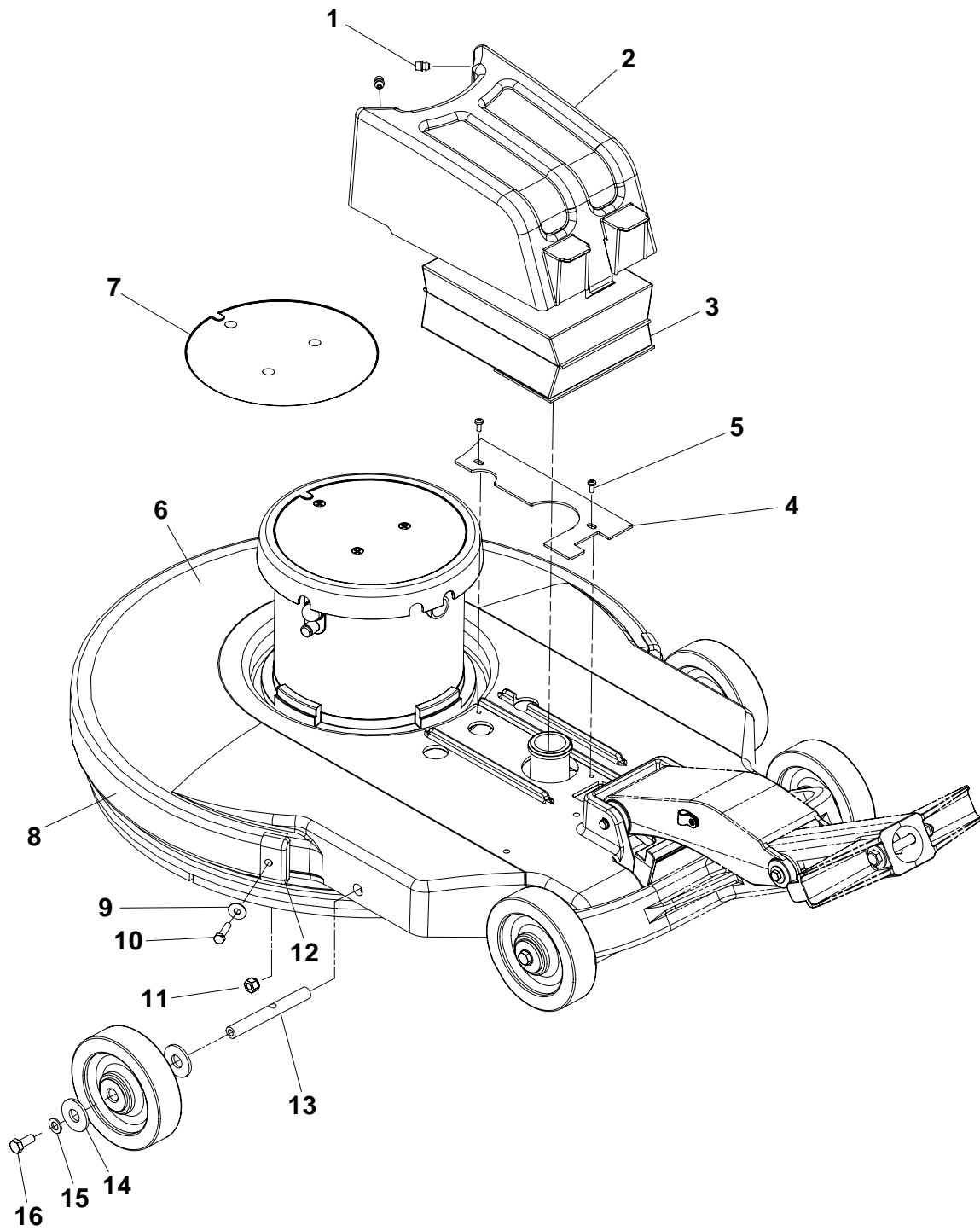


SERVICE SCHEDULE

MAINTENANCE	DAILY	MONTHLY
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		*

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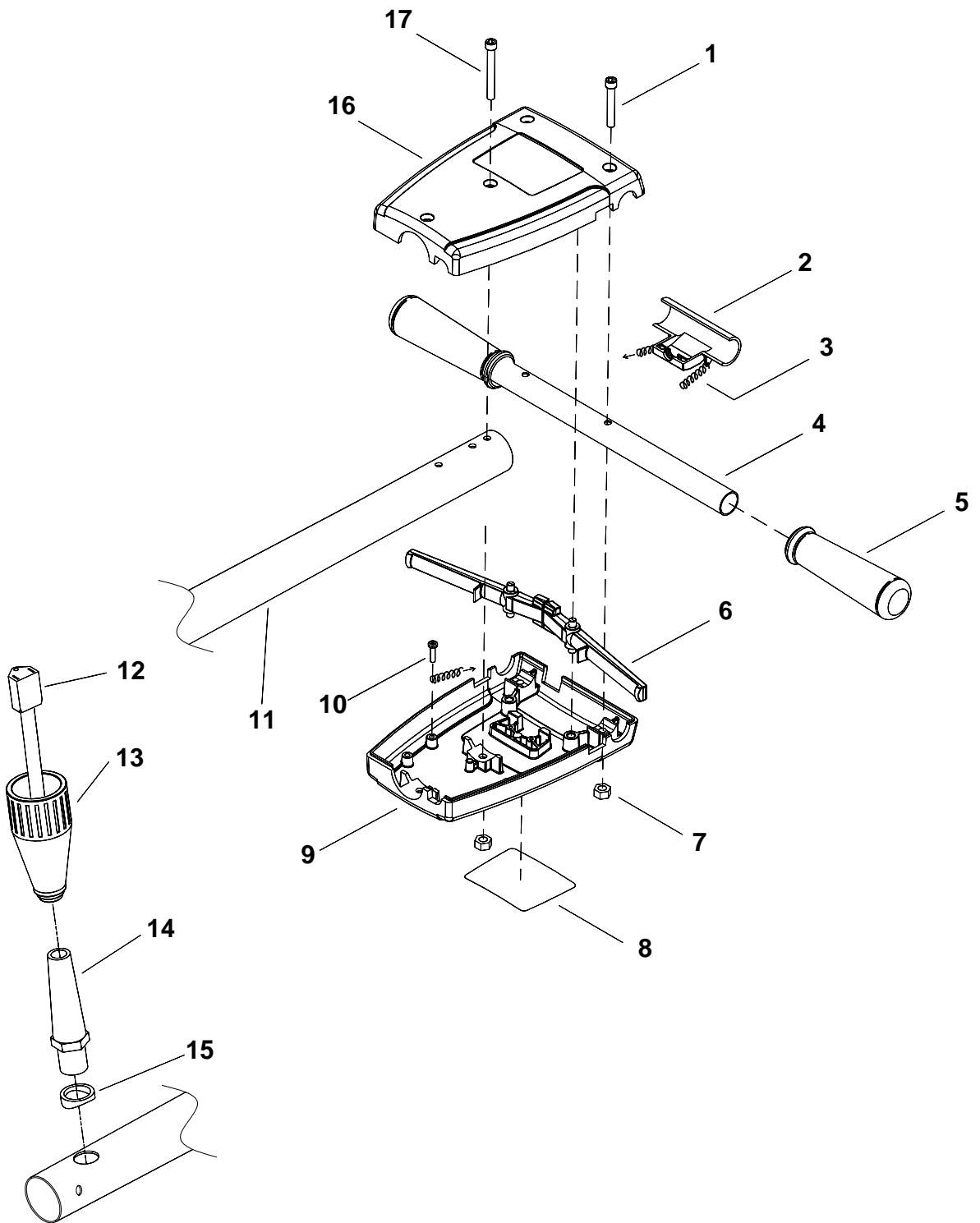
DECK GROUP



DECK GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86216280	140449	4	BUMPER, RUBBER		
2	86217520	27918	1	COVER, FILTER BAG		
3	86001390	140441	1	BAG, DUST (PACKAGE OF 10 BAGS)		
4	86223430	67463	1	RETAINER, CORD		
5	86276810	70738	2	SCR, M5 X .8MM X 10 MM PPHMS BLK		
6	86217640	29244BLU	1	DECK, 20 IN BURNISHER, BLUE		
7	86220060	500767	1	LABEL, LIGHTNING 2000 MAIN		
8	86216270	140423	1	BUMPER, EXTRUSION		
9	86137340	87211	2	WASHER, M6 FLAT BLK		
10	86276570	70691	2	SCR, M6 X 25 HHMS BLK		
11	86271550	57220	2	NUT, M6 X 1 HEX NYLOCK PLTD		
12	86216600	27871	2	CAP EXTRUSION		
13	86215020	05156	2	AXLE, FRONT		
14	86225720	87203	4	WASHER, 14MM ID X 36 MM OD		
15	86137280	87054	2	WASHER, M8 FLAT DIN125A PLT		
16	86136640	70262	2	SCR, M8 X 20 HHMS PLTD		

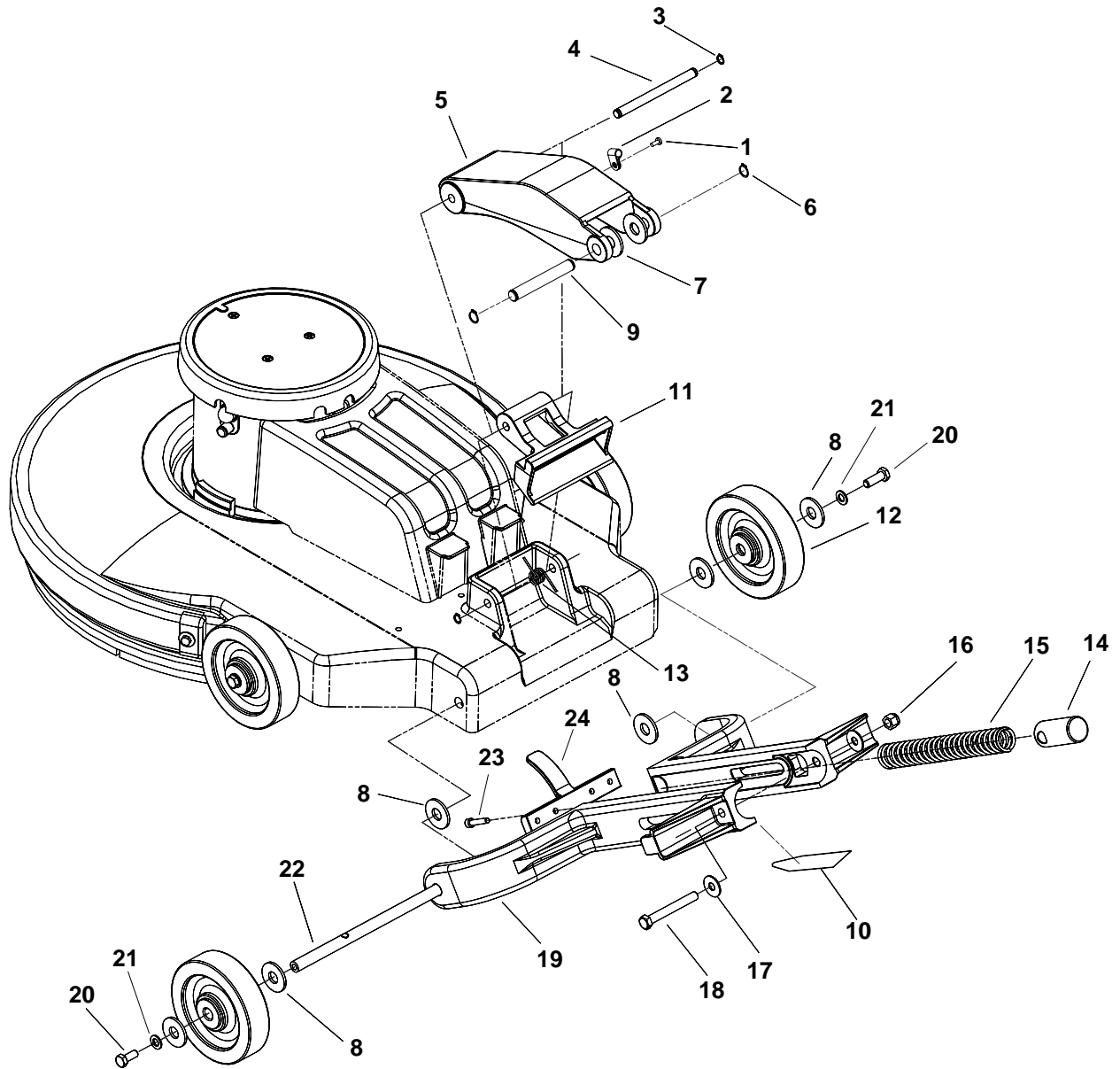
HANDLE GROUP



HANDLE GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86136670	70686	2	SCR, M6 X 45 SHCS BLK		
2	86005150	51326	1	LOCK, SAFETY HANDLE		
3	86224740	73990	2	SPRING, EXT. .50D X 3.5L		
4	86215120	140428	1	BAR, HANDLE		
5	86004070	36196	2	GRIP, POLISHER HANDLE		
6	86005160	51327	2	LEVER, SWITCH		
7	86136350	57274	4	NUT, M6 X 1		
8	86219740	500194	1	LABEL, WARNING		
9	86219320	41363	1	HOUSING, POLISHER HANDLE FRONT		
10	86288450	70689	2	SCR, M4.8 X 10 HHTF TYPE B		
11	86225390	78473	1	TUBE HANDLE		
12	86216940	23209	1	CORDSET, 14/3 X 38 IN, SJT, BLK		
13	86215430	14407	1	BOOT, TWIST LOCK		
14	86224930	730012	1	STRAIN RELIEF, 14/3 STRAIGHT		
15	86224300	730021	1	SPACER, POLISHER HANDLE		
16	86219330	41366	1	HOUSING, POLISHER HANDLE FRONT		
17	86136680	70687	2	SCR, M6 X 50 SHCS BLK		

LOWER HANDLE GROUP

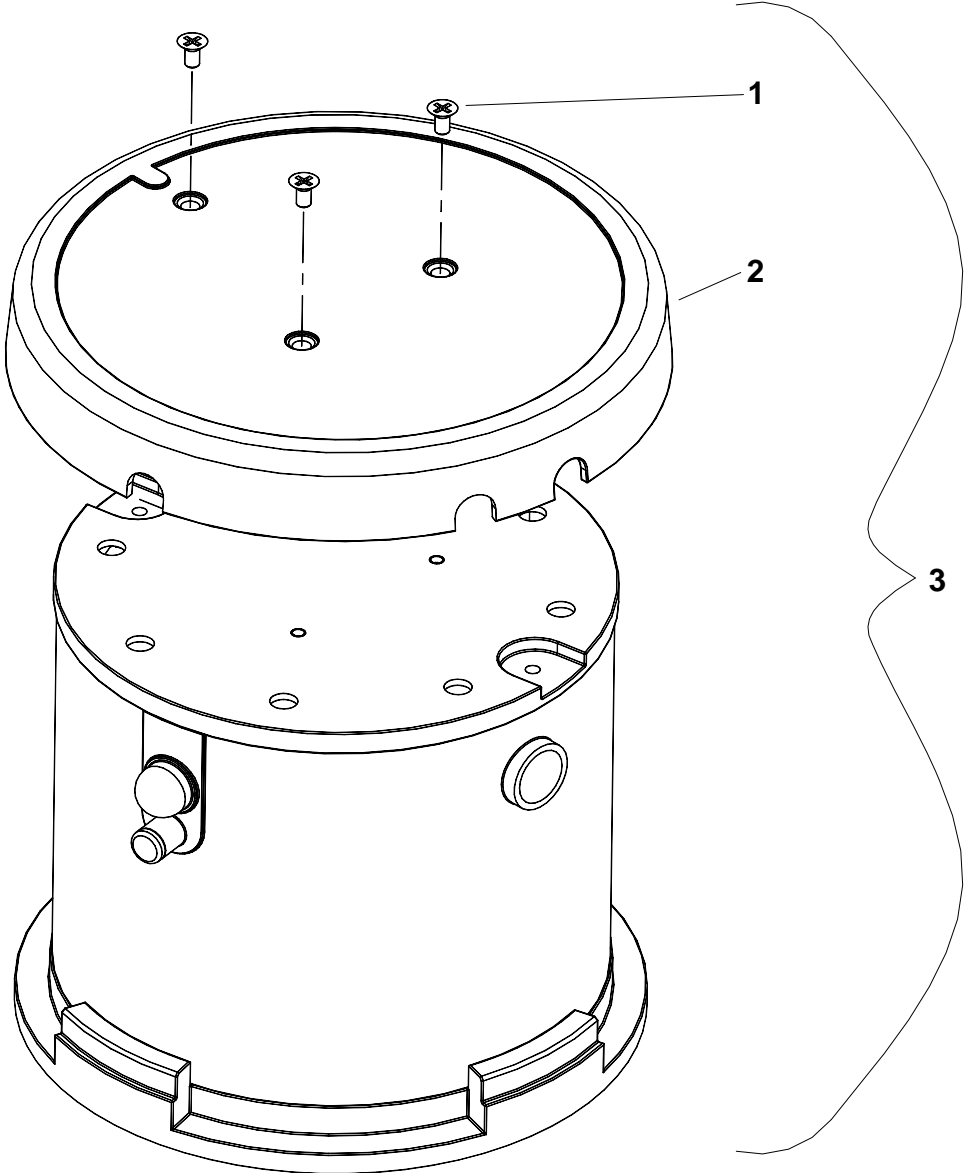


NOTE: Grease items 14 and slide area of 19 as necessary when servicing.

LOWER HANDLE GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86276810	70738	1	SCR, M5 X .8MM X 10 MM PPHMS BLK		
2	86198450	20005	1	CLAMP, 5/16 NYLON		
3	86223490	67468	2	RING, 10MM EXTERNAL SNAP		
4	86222570	66340	1	PIN, DOWEL 10MM DIA X 124 MM LG		
5	86215480	140421	1	BRACKET, HANDLE LINK		
6	86223500	67469	2	RING, 13MM EXTERNAL SNAP		
7	86288760	87234	2	WASHER, 14MM ID X 36MM OD X 2MM		
8	86225720	87203	8	WASHER, 14MM ID X 35 MM OD		
9	86224310	730052	1	SPACER, LINKAGE		
10	86288770	500542	1	LABEL, HANDLE RELEASE		
11	86221720	51358	1	LATCH, HANDLE		
12	86226020	89206	2	WHEEL. 5D X 1.25 X 13MM ID GRY		
13	86224590	730055	1	SPRING, 180 DEGREE TORSION		
14	86215390	140420	1	BLOCK, SPRING COMPRESSION		
15	86224580	730054	1	SPRING, COMP 1.140 OD X 8.40 L X .150 W		
16	86005770	57119	1	NUT, 3/8-16 HEX NYLOCK		
17	86279510	87171	2	WASHER, 3/8 FLAT		
18	86274000	70069	1	SCR, 3/8-16 X 3 HHCS GR5		
19	86215470	140419	2	BRACKET, HANDLE MOUNT		
20	86136640	70262	1	SCR, M8 X 20 HHMS PLTD		
21	86137280	87054	2	WASHER, M8 FLAT DIN125A PLT		
22	86215030	05157	1	AXLE, REAR		
23	86223710	70733	4	SCR, M6 X 30 SHCS PLTD		
24	86225010	730053	1	STRIKER, LATCH		

MOTOR GROUP



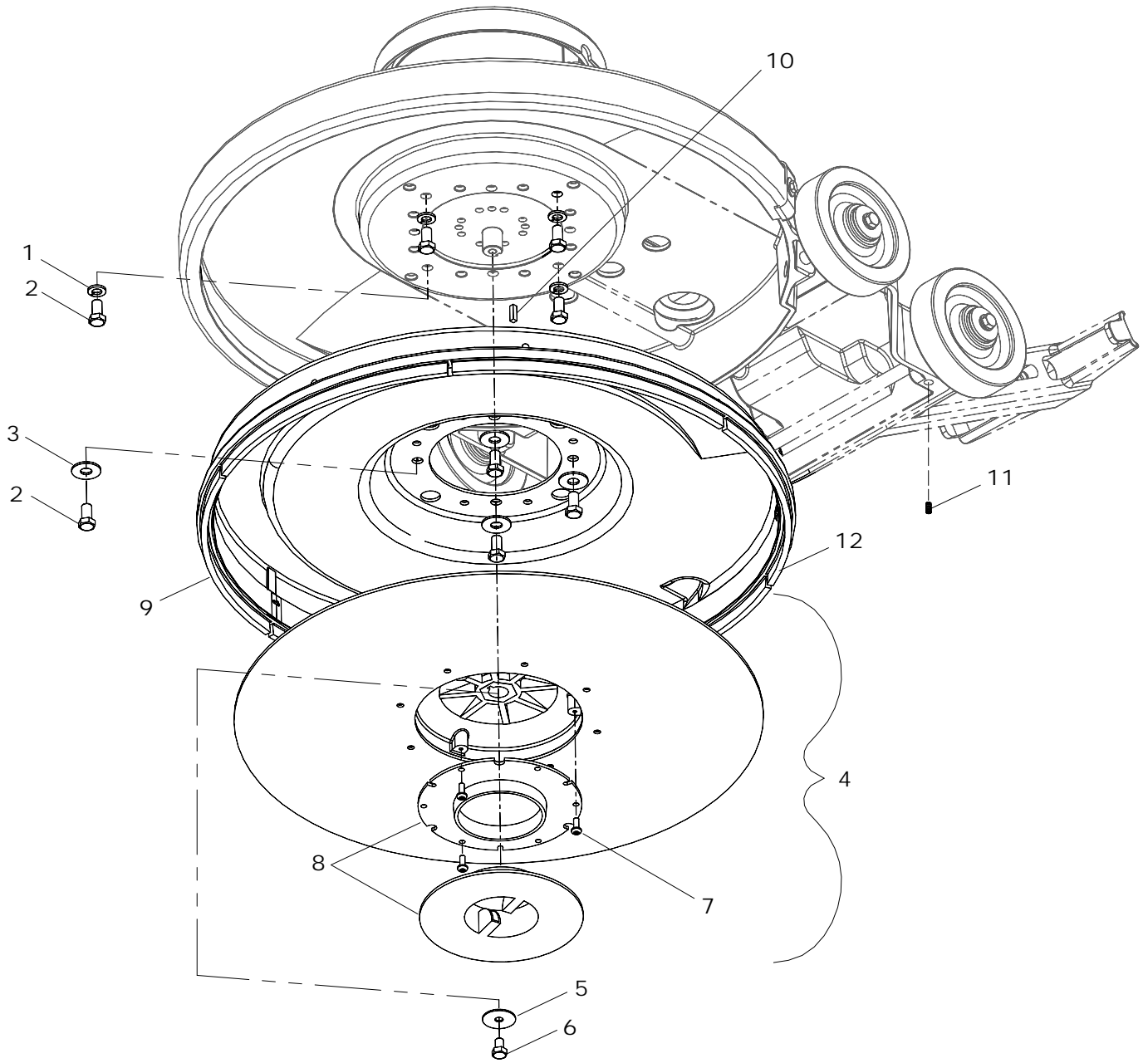
MOTOR GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86223690	70702	3	SCR, M5 X .8 X15MM BLK		
2	86217490	27884	1	COVER, MOTOR		
3	86222080	53256	1	MOTOR, 115VOLT 1.5HP 2000RPM		INCLUDES ITEM 1 & 2

MOTOR COMPONENTS (NOT SHOWN)

PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
86216700	140401	1	CIRCUIT BREAKER, 30 AMP MPX		
86223390	67488	1	RECTIFIER, 50A 600V BRIDGE		
86001820	14404	1	BRUSH SET MOTOR (PKG OF 4)		
86003660	34378	1	FUSE		
86003670	34379	1	FUSE HOLDER		
86223980	09134	1	BEARING, 25MM X 52MM BOTTOM	10015909	
86001020	09135	1	BEARING, MOTOR TOP		

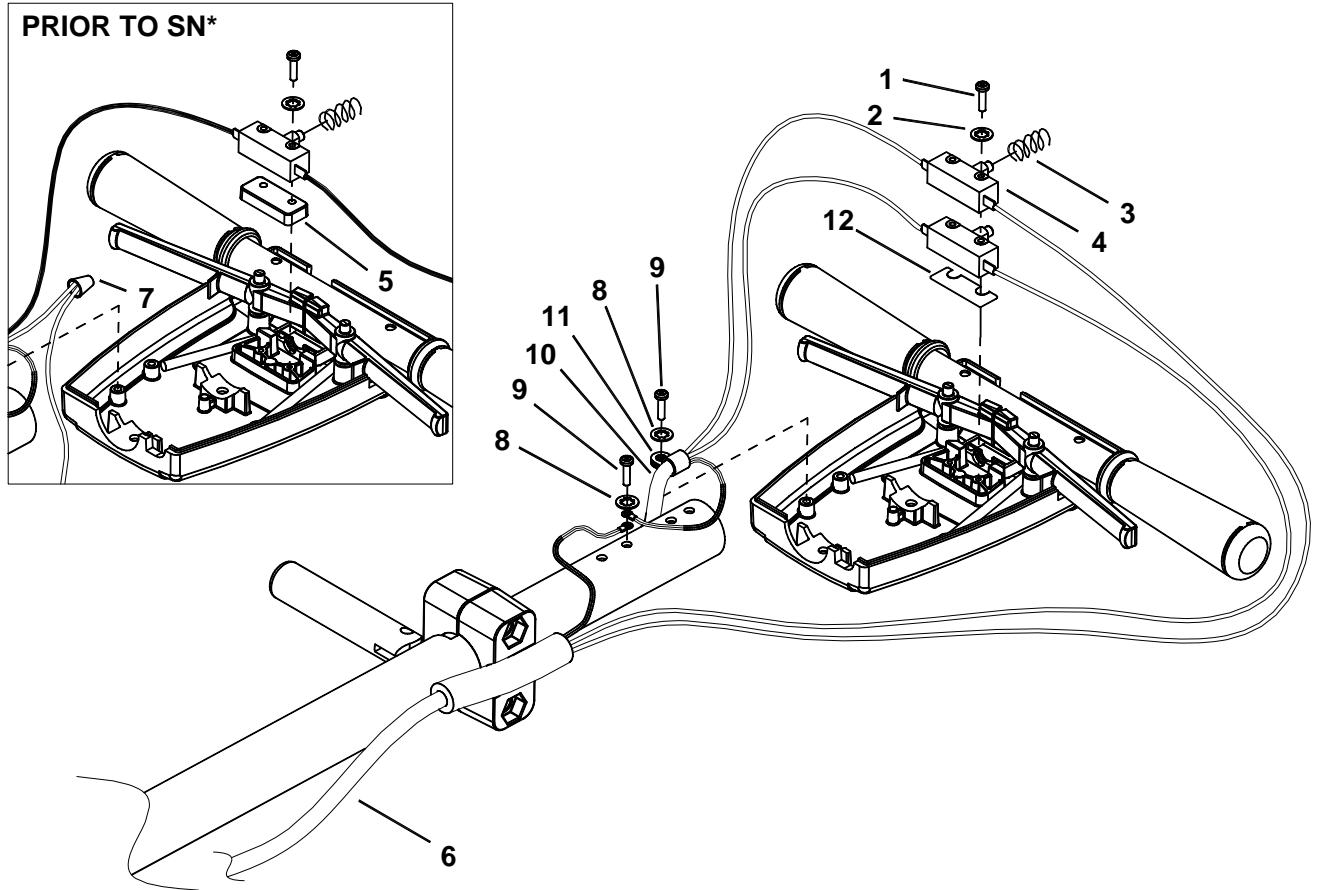
PAD/DRIVER GROUP



PAD/DRIVER GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86010790	87163	4	WASHER, 3/8 SPLIT LOCK PLTD		
2	86006920	70507	8	SCR, 3/8-16 X 3/4 HHCS PLT		
3	86010720	87086	4	WASHER, M10 X 30 PLTD		
4	86222470	64108	1	PAD DRIVER, 20 INCH BURNISHER		INCLUDES ITEMS 7 & 8
5	86279210	87102	1	WASHER, 5/46 ID X 1 1/4 OD		
6	86274590	70244	1	SCR, 5/16-24 X 1/2 HHMS SS		
7	86276740	70720	3	SCR, #10 X 3/8 PPHST TYPE B		
8	86246740	51353	1	LOCK, PAD DRIVER BLUE		
9	86223660	730065	1	SHROUD, ASM. 20 IN BURNISHER		INCLUDES ITEM 12
10	86219610	48082	1	KEY, 3/16 SQ X 11/16 LG CRS		
11	86224000	70736	3	SET SCR, M8 X 20MM CUP PT		
12	86216230	730074	1	BRUSH, STRIP (PACKAGE OF 6)		

WIRING GROUP



WIRING GROUP

REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES:
1	86136780	70801	2	SCR, M3.5 X 40 PHTF TYPE B	*	WAS 70688
2	86137290	87057	2	WASHER, M4 SHAKEPROOF		
3	86224750	73993	1	SPRING, COMP, .48OD X .875L		
4	86007110	72123	2	SWITCH, 25A SPST 125-250V SNAP	*	WAS QTY 1
5	86224550	73989	1	SPACER, SWITCH POLISHER		
6	86234140	23154	1	CORD SET, 14/3 STO X 75' YLW		
7	86247920	57069	1	NUT, ORG WIRE (2-5 18G/2-14G)		
8	86137330	87208	2	WASHER, M5 SHAKEPROOF PLTD		
9	86288450	70689	2	SCR, M4.8 X 10 HHTF TYPE B		
10	86216930	23207	1	CORDSET, 14/3 X 48", SJT, BLK		
11	86198450	20005	1	CLAMP, 5/16 NYLON		
12	86215140	140674	1	BARRIER SHEET	*	

SUGGESTED SPARE PARTS

PART NO.	PRV NO.	DESCRIPTION	SERIAL NO. FROM	NOTES:
86224740	73990	SPRING, EXT .5 OD X 3.5 L		
86224750	73993	SPRING, COMP .48 OD X .91 L		
86007110	72123	SWITCH, 25A SPST 125-250V SNAP		
86216700	140401	CIRCUIT BREAKER, 30 AMP		
86223390	67488	RECTIFIER, 50A 600V BRIDGE		
86001820	14404	BRUSH SET MOTOR (PKG OF 4)		
86003660	34378	FUSE		
86003670	34379	FUSE HOLDER		
86001020	09135	BEARING, MOTOR		
86246740	51353	LOCK, PAD DRIVER BLUE		
86001390	140441	BAG, DUST (PACKAGE OF 10 BAGS)		
86215390	140420	BLOCK, SPRING COMPRESSION		
86216230	730074	BRUSH, STRIP (PACKAGE OF 6)		