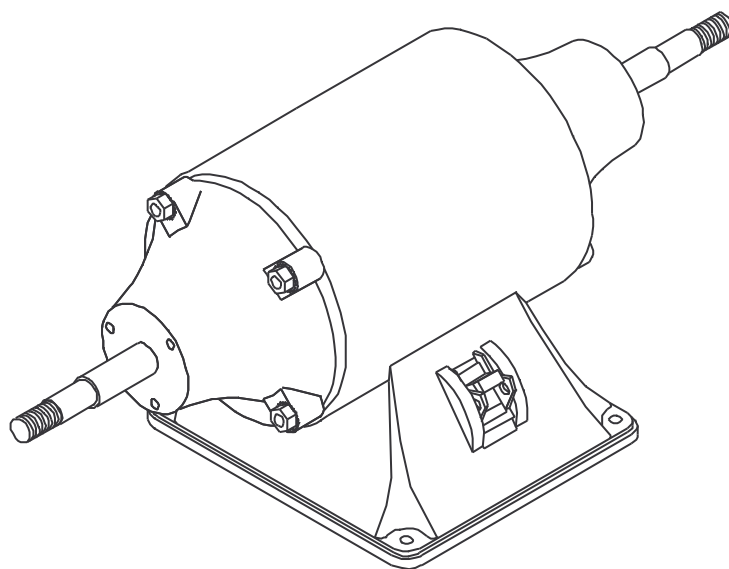




## 6" & 8" BUFFER



***Read carefully and follow all safety rules and operating instructions before first use of this product.***

**DESCRIPTION**

Palmgren buffers are equipped with a totally enclosed ball bearing motor. Armature assembly is dynamically balanced for smooth operation. Motor housing is compact so long pieces of work can press against both buffing wheels without touching the motor frame.

**UNPACKING**

Check for shipping damage. If damage has occurred, a claim must be filed with the carrier immediately. Check for completeness. Immediately report missing parts to dealer.

**SPECIFICATIONS**

**82063A-6" Buffer**

Horsepower .....	1/2"
Voltage .....	120
Amperes .....	5.0
Hertz .....	.60
Phase .....	Single
RPM .....	.3450
Rotation (viewed from left side) .....	Clockwise
Wheel diameter .....	.6"
Wheel bore .....	.1/2"

**82083A-8" Buffer**

Horsepower .....	3/4"
Voltage .....	120/240
Amperes .....	8.0/4.0
Hertz .....	.60
Phase .....	Single
RPM .....	.3450
Rotation (viewed from left side) .....	Clockwise
Wheel diameter .....	.8"
Wheel bore .....	5/8"

**SAFETY RULES**

**WARNING:** For your own safety, read operating instructions manual before operating tool.

**BE PREPARED FOR JOB**

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

**PREPARE WORK AREA FOR JOB**

- Keep work area clean. Cluttered work areas and work benches invite accidents.

- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- Proper electrical plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of the workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

**TOOL SHOULD BE MAINTAINED**

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool clean for safest operation.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before turning machine on.
- Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may affect a tool's operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use the parts list to order replacement parts.)

**KNOW HOW TO USE TOOL**

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool from power when changing buffing wheels.
- Avoid accidental start-up. Make sure that the switch is in the off position before plugging in.
- Do not force tool. It will work most efficiently at the rate for which it was designed.
- Keep hands away from moving parts and buffing surfaces.
- Never leave a tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- Never stand on tool. Serious injury could occur if tool is tipped over.
- Know your tool. Learn the tool's operation, application and specific limitations.
- Use recommended accessories. Understand and obey all safety instructions supplied with accessories. The use of improper accessories may cause risk of injury to persons.
- Do not over tighten wheel nut. Replace cracked wheel immediately. Use only flanges supplied with the buffer.
- Adjust distance between wheel and tool rest to maintain 1/16" or less gap.
- Handle the workpiece correctly. Whenever possible, use tool rest to support workpiece during buffing operation. Turn tool off if it jams.
- Always use guards and eyeshields.
- Clean buffing dust from beneath tool frequently.

## ASSEMBLY

Refer to Figure 4.

**IMPORTANT:** Do not attempt assembly if parts are missing. Use this manual to order replacement parts.

- Remove plastic protective sleeves from armature shaft (Ref. No. 9).
- Slide spacer (Ref. No. 3) onto armature shaft.
- Slide inner wheel flange (Ref. No. 2) onto armature shaft.
- Slide in buffing wheel on to the armature shaft and butt it against the inner wheel flange. (Buffing wheels are not included with buffer).
- Slide in the outer wheel flange and butt the flat side of the flange against the buffing wheel.
- Tighten hex nut (Ref. No. 1) on to the armature shaft. Make sure the buffing wheel is firmly held in place and the hex nut is snug against the outer wheel flange. Use additional spacers (not supplied) if required.
- Repeat above steps to install buffing wheel on the other side of the buffer.

## INSTALLATION

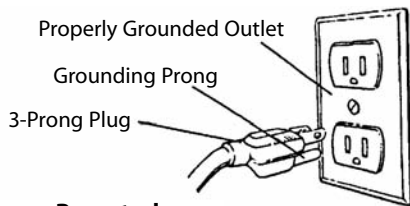
### MOUNT BUFFER

- Mount buffer to a solid horizontal surface (hardware not provided). If mounted to metal pedestal, align mounting holes with corresponding holes in pedestal. Insert a 1/4"-20 x 1 1/4" hex head bolt with flat washer through base of buffer. From bottom of pedestal, place a 1/4" flat washer and 1/4"-20 hex nut onto the bolt. Tighten only until space between buffer base and pedestal is 1/8". Using second nut on each bolt, jam tighten against the first to prevent loosening by vibration.
- To mount buffer to wooden bench top, use 1/4 x 1 1/4" wood screws with flat washers beneath heads. Tighten screws until space between buffer base and bench top is 1/8".

### GROUNDING INSTRUCTIONS

**WARNING:** Improper connection of equipment grounding conductor can result in the risk of electrical shock. Equipment should be grounded while in use to protect operator from electrical shock.

- Check with a qualified electrician if grounding instructions are not understood or if in doubt as to whether the tool is properly grounded.
- This buffer is equipped with an approved 3-conductor cord rated at 300V and a 3-prong, grounding type plug (See Figure 1) for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle (See Figure 1).



**Figure 1 – 3-Prong Receptacle**

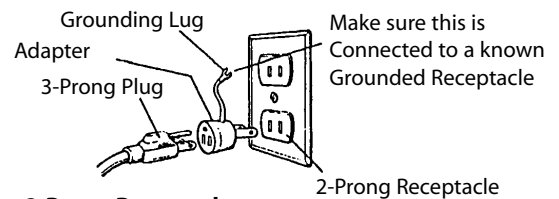
- Do not remove or alter grounding prong in any manner. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

**WARNING:** Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician.
- Inspect tool cords periodically, and, if damaged, have repaired by an authorized service facility.
- Green (or green and yellow) conductor in cord is the grounding wire. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.
- Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with National Electric Code and local codes and ordinances.

**WARNING:** This work should be performed by a qualified electrician.

- A temporary 3-prong to 2-prong grounding adapter (See Figure 2) is available for connecting plugs to a two pole outlet if it is properly grounded.



**Figure 2 – 2-Prong Receptacle**

- Do not use a 3-prong to 2-prong grounding adapter unless permitted by local and national codes and ordinances. (A 3-prong to 2-prong grounding adapter is not permitted in Canada.) Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.
- Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

### EXTENSION CORDS

- The use of any extension cord will cause some drop in voltage and loss of power.
- Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
- Running the unit on voltages which are not within ±10% of the specified voltage may cause overheating and motor burnout.
- Use the table to determine the minimum wire size (A.W.G.) extension cord.
- Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
- If the extension cord is worn, cut or damaged in any way, replace it immediately.

### EXTENSION CORD LENGTH

Wire Size .....	A.W.G.
Up to 25 ft. ....	18
25 to 50 ft. ....	16

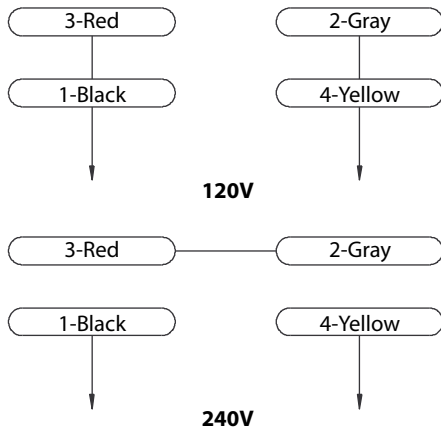
**NOTE:** Using extension cords over 50 ft. long is not recommended.

## ELECTRICAL CONNECTIONS

**WARNING:** All electrical connections must be performed by a qualified electrician. Make sure tool is off and disconnected from power source while motor is mounted, connected, reconnected or anytime wiring is inspected.

### REWIRING 8" BUFFER (MODEL 82083A) ONLY

- Motor and wires are installed as shown in wiring diagram (See Figure 3). Motor is assembled with approved, 3-conductor cord to be used at 120/240 volts. Motor is prewired at the factory for 120 volts.



**Figure 3 – Wiring Diagram**

- To use the buffer with a 240V power supply, have a qualified electrician rewire motor and attach a 240 volt, 15A three-prong plug onto buffer line cord.

## OPERATION

**WARNING:** Always wear safety glasses complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation.

- Keep a steady, moderate pressure on the work and keep it moving at an even pace for smooth buffing.
- Pressing too hard overheats the motor and prematurely wears down the buffing wheels.
- The buffing wheel should rotate into object being buffed.

## MAINTENANCE

- Replacement wheels should have a minimum rated speed of at least 3600.
- Maximum wheel diameter for 82063A is 6", and 8" for 82083A.
- Disconnect unit from power source before replacing buffing wheels or before performing any maintenance work.
- The threads on the right side of the buffer (facing unit) are right hand; threads on the left side are left hand. Hold the wheels firmly to loosen the hex nut.
- Make sure hex nuts are tight and snug against the outer wheel flange prior to restarting buffer.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Buffer won't start	<ol style="list-style-type: none"> <li>1. Blown line fuse or tripped circuit breaker</li> <li>2. Low line voltage</li> <li>3. Defective switch</li> <li>4. Defective, blown capacitor</li> </ol>	<ol style="list-style-type: none"> <li>1. If fuse is blown, replace with fuse of proper size. If breaker tripped, reset it</li> <li>2. Check power supply for voltage and correct as needed</li> <li>3. Replace switch</li> <li>4. Replace capacitor</li> </ol>
Excessive vibration	<ol style="list-style-type: none"> <li>1. Improper mounting of buffer on buffing wheel</li> <li>2. Buffing wheels not balanced</li> </ol>	<ol style="list-style-type: none"> <li>1. Remount</li> <li>2. Remount or replace wheels</li> </ol>
Motor overheating	<ol style="list-style-type: none"> <li>1. Excess pressure required to buffing</li> <li>2. Buffing on side of wheel</li> <li>3. Motor not turning freely (without power)</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace wheel</li> <li>2. Perform buffing only on face of wheel</li> <li>3. Clean around wheels and shaft and/or replace bearings</li> </ol>
Fuses are being blown or circuit breakers are being tripped	<ol style="list-style-type: none"> <li>1. Overloading due to binding</li> <li>2. Defective plug</li> <li>3. Defective cord</li> <li>4. Defective switch</li> <li>5. Motor wired for different line voltage</li> <li>6. Faulty internal wiring</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean around wheels and shaft and/or replace bearings</li> <li>2. Replace plug</li> <li>3. Replace cord</li> <li>4. Replace switch</li> <li>5. Rewire motor as per wiring diagram, (See Installation, Page 4)</li> <li>6. Contact your Palmgren distributor</li> </ol>
Buffer does not develop proper torque	<ol style="list-style-type: none"> <li>1. Motor wired for different line voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Rewire motor as per wiring diagram, (See Installation, Page 4)</li> </ol>

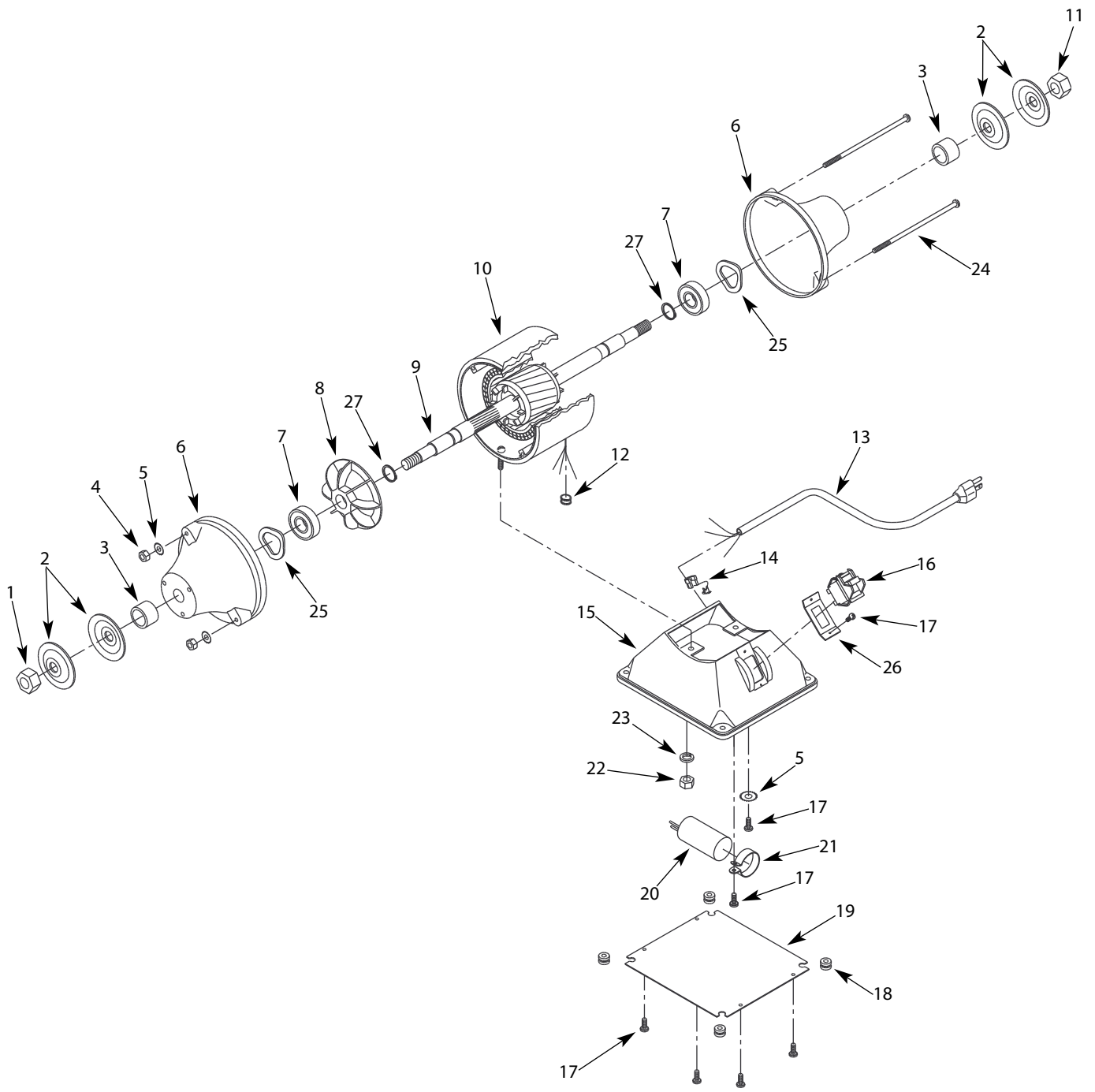


Figure 4 - Replacement Parts Illustration for Buffers

## REPLACEMENT PARTS LIST FOR BUFFERS

Ref. No.	Description	Part Number for:		Qty.
		6" 82063A	8" 82083A	
1	1/2"-12 Hex Nut (LH Thread)	00064.00	—	1
1	5/8"-11 Hex Nut (LH Thread)	—	00088.00	1
2	Wheel Flange	23754.00	23754.00	4
3	Spacer	24545.00	23985.00	2
4	5-0.8mm Hex Nut	*	*	4
5	#10 Serrated Washer	*	*	3
6	Endshield	24546.09	23986.09	2
7	6202ZZ Bearing	*	—	2
7	6204ZZ Bearing	—	*	2
8	Motor Fan	24547.00	23987.00	1
9	Armature	N/A	N/A	1
10	Stator with Housing	N/A	N/A	1
11	1/2"-12 Hex Nut	0548.00	—	1
11	5/8"-11 Hex Nut	—	*	1
12	Grommet	01066.00	01066.00	1
13	Line Cord	00067.00	00090.00	1
14	Strain Relief	04055.00	04055.00	1
15	Base	23757.09	23757.09	1
16	Switch with Key	23991.00	08066.00	1
17	#10-24 x 1/4" Pan Head Screw	*	—	8
17	#10-24 x 3/8" Pan Head Screw	—	*	8
18	Bumper	23991.00	23991.00	4
19	Cover	23758.00	23758.00	1
20	Capacitor	23759.00	23993.00	1
21	Capacitor Clamp	—	23995.00	1
22	1/4"-20 Hex Nut	*	*	2
23	1/4" Lock Washer	*	—	2
24	5-0.8 x 228mm Flange Screw	—	16654.00	2
24	5-0.8 x 200mm Flange Screw	04040.00	—	2
25	Wavy Washer	08283.00	16640.00	2
26	Switch Plate	23944.00	23944.00	1
27	3AMI-20 Retaining Ring	—	00256.00	2
Δ	Operator's Manual	24989.09	27989.09	1
<b>Recommended Accessories</b>				
Δ	Bench grinder Pedestal Stand	70101	70101	1

Δ Not Shown.

\* Standard hardware item available locally.

N/A Nos available as replacement part

## TWO YEAR LIMITED WARRANTY

**Palmgren** warrants to the original purchaser that all products covered under this warranty are free from defects in material and workmanship for a period of two years from the date of the original purchase.

We will repair or replace at our option, any part or parts of the product and accessories covered under this warranty which, after examination, proves to be defective in workmanship or material during the warranty period.

This warranty does not apply to repair or replacement required due to misuse, abuse, normal wear and tear, or repairs attempted or made by other than our Service Department or an Authorized Service Representative. Proper use and care instructions are provided in the operator's manual. Failure to follow these instructions will void the warranty.

This warranty gives you specific legal rights and you may also have other legal rights which may vary from state to state.

### **Responsibility of Original Purchaser (Initial User):**

- To process warranty claim on this product, DO NOT return it to the retailer. The product must be evaluated by **Palmgren**. Call (800) 621-6145 for instructions.
- Retain original cash register sales receipt or invoice as proof of purchase for warranty work.
- Use reasonable care in the operation and maintenance of the product as described in the operator's manual.
- Deliver or ship the product(s) to **Palmgren**. Freight costs, if any must be paid by the purchaser.

### **This Warranty Does Not Cover:**

- Merchandise sold as reconditioned, used as rental equipment, and floor or display models.
- Repair and transportation costs of merchandise determined not to be defective.
- Expendable parts or accessories supplied with the product which are expected to become inoperative or unusable after a reasonable period of use. See the operator's manual for a list of accessories and expendable parts.

