

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

9682063B, 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"

9682083B, 8" Buffer

Horsepower	3/4"
Voltage	120/240
Amperes	5.0/2.5
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 all of the instructions and precautions before operating tool.

CAUTION: Always follow proper operating procedures as defined in this manual — even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

PROPOSITION 65 WARNING: Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures vary, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

Before any work is done, carefully read the cautions listed. Working safely prevents accidents.

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.

**SAFETY RULES (CONTINUED)**

- 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 $1\frac{1}{4}$ " 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 $1\frac{1}{4}$ " 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).

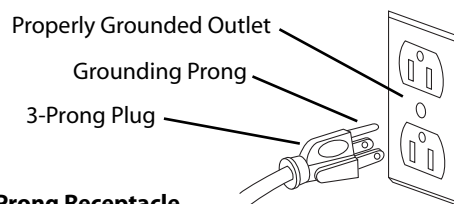


Figure 1 – 3-Prong Receptacle

- 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.

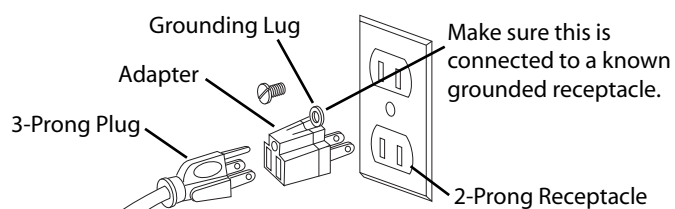


Figure 2 – 2-Prong Receptacle with Adapter

- 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.



INSTALLATION (CONTINUED)

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 $\pm 10\%$ 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 9682083B) 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.
- 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.

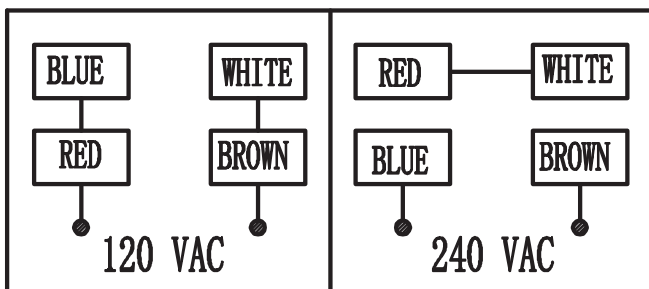


Figure 3 – Wiring Diagram

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 9682063B is 6"; and 8" for 9682083B.
- 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"> 1. Blown line fuse or tripped circuit breaker 2. Low line voltage 3. Defective switch 4. Defective, blown capacitor 	<ol style="list-style-type: none"> 1. If fuse is blown, replace with fuse of proper size. If breaker tripped, reset it 2. Check power supply for voltage and correct as needed 3. Replace switch 4. Replace capacitor
Excessive vibration	<ol style="list-style-type: none"> 1. Improper mounting of buffer on buffing wheel 2. Buffing wheels not balanced 	<ol style="list-style-type: none"> 1. Remount 2. Remount or replace wheels
Motor overheating	<ol style="list-style-type: none"> 1. Excess pressure required to buffing 2. Buffing on side of wheel 3. Motor not turning freely (without power) 	<ol style="list-style-type: none"> 1. Replace wheel 2. Perform buffing only on face of wheel 3. Clean around wheels and shaft and/or replace bearings
Fuses are being blown or circuit breakers are being tripped	<ol style="list-style-type: none"> 1. Overloading due to binding 2. Defective plug 3. Defective cord 4. Defective switch 5. Motor wired for different line voltage 6. Faulty internal wiring 	<ol style="list-style-type: none"> 1. Clean around wheels and shaft and/or replace bearings 2. Replace plug 3. Replace cord 4. Replace switch 5. Rewire motor as per wiring diagram, (See Installation, Page 4) 6. Contact your Palmgren distributor
Buffer does not develop proper torque	<ol style="list-style-type: none"> 1. Motor wired for different line voltage 	<ol style="list-style-type: none"> 1. Rewire motor as per wiring diagram, (See Installation, Page 4)



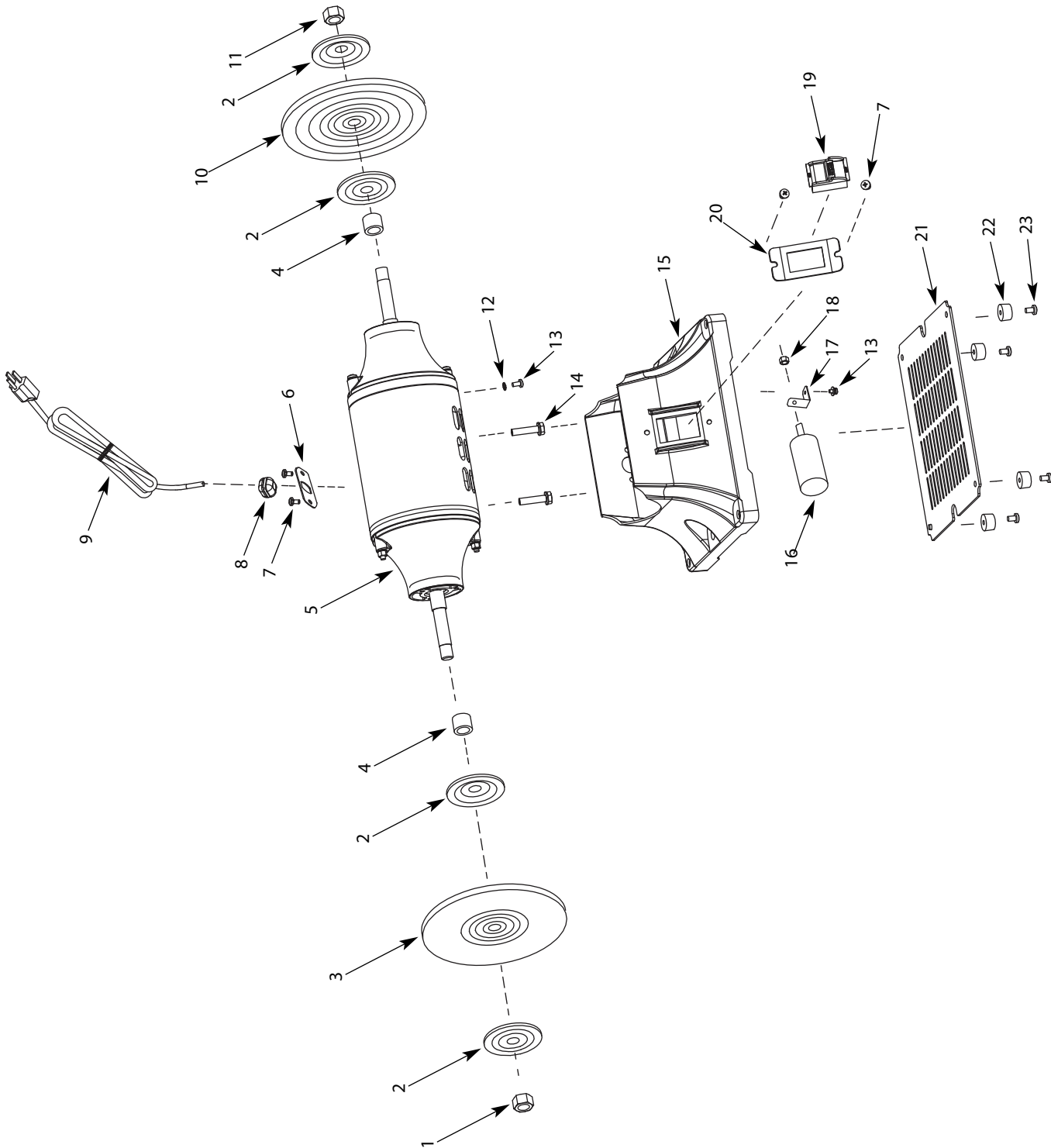


Figure 4 – Repair Parts Illustration for 9682063B 6" Buffer and 9682083B 8" Buffer

REPAIR PARTS LIST FOR 9682063B, 6" BUFFER

Ref. No.	Description	Part No.	Qty	Ref. No.	Description	Part No.	Qty.
1	Hex Nut, M12 Left	9600064.01	1	13	Phillips Screw + Flat Washer + Spring Washer Assy., M4x8	*	2
2	Flange	9623754.00	4	14	Phillips Screw + Spring Washer Assy., M6x20	*	2
3	6 Inch Soft Buffing Wheel, 1/2" Bore	*	1	15	Base	N/A	1
4	Sleeve	9624545.00	2	16	Capacitor	9623759.01	1
5	Motor	N/A	1	17	Capacitor Support	9623995.01	1
6	Clip Plate	9608099.01	1	18	Hex Nut, M8	*	1
7	Phillips Screw, M5x8	*	4	19	Switch	9608066.01	1
8	Cord Clip	*	1	20	Switch Plate	9636282.01	1
9	Power Cord	9600067.01	1	21	Base Plate	9632758.01	1
10	6 Inch Spiral Buffing Wheel, 1/2" Bore	*	1	22	Rubber Foot	9623991.01	4
11	Hex Nut, M12	*	1	23	Phillips Screw + Flat Washer Assy., M4x12	*	4
12	Star Lock Washer, M4	*	1				

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REPAIR PARTS LIST FOR 9682083B, 8" BUFFER

Ref. No.	Description	Part No.	Qty	Ref. No.	Description	Part No.	Qty.
1	Hex Nut, M16 Left	9600088.01	1	13	Phillips Screw + Flat Washer + Spring Washer Assy., M4x8	*	2
2	Flange	9600089.00	4	14	Phillips Screw + Spring Washer Assy., M6x20	*	2
3	8 Inch Soft Buffing Wheel, 5/8" Bore	*	1	15	Base	N/A	1
4	Sleeve	9623985.00	2	16	Capacitor	9623993.01	1
5	Motor	N/A	1	17	Capacitor Support	9623995.01	1
6	Clip Plate	9608099.01	1	18	Hex Nut, M8	*	1
7	Phillips Screw, M5x8	*	4	19	Switch	9608066.01	1
8	Cord Clip	*	1	20	Switch Plate	9636282.01	1
9	Power Cord	9600090.00	1	21	Base Plate	9623758.01	1
10	8 Inch Spiral Buffing Wheel, 5/8" Bore	*	1	22	Rubber Foot	9623991.01	4
11	Hex Nut, M16	*	1	23	Phillips Screw + Flat Washer Assy., M4x12	*	4
12	Toothed Lock Washer, M4	*	1				

(Δ) Not shown.

(N/A) Not available as repair part.

(*) Standard hardware item, available locally.

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

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