

Operating Instructions and Parts Manual Oscillating Edge Sander

Models OES9138B and OES9138B-3



POWERMATIC

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1.0 Warranty and Service

Powermatic® warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official Powermatic branded website.

- Powermatic products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90-day limited warranty against manufacturer's defects.

Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations, or lack of maintenance. Powermatic woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations

Woodworking products with a Five-Year Warranty that are used for commercial or industrial purposes default to a Two-Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. Please note that you will be asked to provide proof of initial purchase when calling. If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. Powermatic has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the Powermatic website.

More Information

Powermatic is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the Powermatic website.

How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty

POWERMATIC LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. POWERMATIC SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Powermatic sells through distributors only. The specifications listed in Powermatic printed materials and on the official Powermatic website are given as general information and are not binding. Powermatic reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

Product Listing with Warranty Period

90 Days – Parts; Consumable items	
1 Year – Motors, Machine Accessories	
2 Year – Woodworking Machinery used for industrial or commercial purposes	
5 Year – Woodworking Machinery	

NOTE: Powermatic is a division of JPW Industries, Inc. References in this document to Powermatic also apply to JPW Industries, Inc., or any of its successors in interest to the Powermatic brand.

2.0 Table of Contents

Section	Page
1.0 Warranty and Service	2
2.0 Table of Contents	
3.0 Safety Warnings	
4.0 About this Manual	
5.0 Specifications	
6.0 Features	
7.0 Setup and Assembly	
7.1 Shipping Contents	
7.2 Unpacking and Cleanup	
7.4 Dust Collection	
8.0 Electrical Connections	
8.1 Grounding Instructions	
8.2 Three-Phase Test Run	
8.3 Extension Cords	
9.0 Adjustments	
9.1 Control and Adjustment Identification	
9.2 Adjusting Sanding Drum Tilt	10
9.3 Main Table Positioning	11
9.4 Miter Gauge	
9.5 End Guard	
9.6 End Table	
9.7 Replacing Sanding Belt	
9.8 Tracking Adjustment	
10.0 Operation	14
10.1 Operating Guidelines	
10.2 Power Switch and Sanding Belt Speed, and Oscillation Feature	
11.0 Maintenance	
11.1 Lubrication	
12.0 Troubleshooting	
13.0 Replacement Parts	
13.1.1 Base Assembly – Exploded View	
13.1.2 Base Assembly – Parts List	
13.2.1 Tracking and Belt Release Assembly – Exploded View	22
13.2.2 Tracking and Belt Release Assembly – Parts List	23
13.3.1 Table Assembly – Exploded View	
13.3.2 Table Assembly – Parts List	
13.4.1 Drive Assembly – Exploded View	
13.4.2 Drive Assembly – Parts List	
13.5.1 Contour Sanding Assembly – Exploded View	
13.5.2 Contour Sanding Assembly – Parts List	
14.0 Electrical Connections	
14.1 1 Phase, 230V	
14.2 3 Phase, 230V	29



3.0 Safety Warnings

- Read and understand the entire owner's manual before attempting assembly or operation.
- Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
- Replace the warning labels if they become obscured or removed.
- 4. This oscillating edge sander is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a sander, do not use until proper training and knowledge have been obtained.
- Do not use this sander for other than its intended use. If used for other purposes, Powermatic disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- 6. Always wear approved safety glasses/face shields while using this sander. Everyday eyeglasses only have impact resistant lenses; they are *not* safety glasses.
- Before operating this sander, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Do not wear loose clothing. Confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.
- 8. Wear ear protectors (plugs or muffs) if noise exceeds safe levels.
- Do not operate this machine while tired or under the influence of drugs, alcohol, or any medication.
- 10. Make certain switch is in OFF position before connecting machine to power supply.
- 11. Make certain machine is properly grounded.
- Make all machine adjustments or maintenance with machine unplugged from the power source.
- 13. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- 14. Keep safety guards in place at all times when machine is in use. If removed for maintenance purposes, use extreme caution and replace the

- guards immediately after completion of maintenance.
- 15. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 16. Provide for adequate space surrounding work area and non-glare, overhead lighting.
- 17. Keep the floor around the machine clean and free of scrap material, oil, and grease.
- 18. Keep visitors a safe distance from the work area. Keep children away.
- Make your workshop child proof with padlocks, master switches, or by removing starter keys.
- 20. Give your work undivided attention. Looking around, carrying on a conversation, and "horse-play" are careless acts that can result in serious injury.
- 21. Maintain a balanced stance at all times so that you do not fall into the sanding belt or other moving parts. Do not overreach or use excessive force to perform any machine operation.
- 22. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and more safely.
- 23. Use recommended accessories; improper accessories may be hazardous.
- 24. Maintain control of workpiece at all times. Make sure the work piece is stabilized during operation. Firmly hold workpiece down against table while sanding. Use the miter gauge whenever possible.
- 25. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 (see sect. 8.3) shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
- 26. Turn off the machine and disconnect from power source before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.

- 27. Do not stand on the machine. Serious injury could occur if the machine tips over.
- 28. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
- Remove loose items and unnecessary work pieces from the area before starting the machine.
- 30. Don't use in dangerous environment. Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lighted.
- 31. This sander is intended to be used with wood and wood products only. Use of this sander and

- a dust collector with metal products is a potential fire hazard.
- 32. Do not sand workpieces that are too small to be safely supported.
- 33. Allow machine to reach operating speed before beginning to sand.
- 34. Do not operate this sander with a damaged drive wheel, idler wheel, or sanding belt.

Familiarize yourself with the following safety notices used in this manual:

This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.

SAVE THESE INSTRUCTIONS

4.0 About this Manual

This manual is provided by Powermatic and covers the safe operation and maintenance procedures for the OES9138B and OES9138B-3 Oscillating Edge Sanders. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this manual.

If there are questions or comments, please contact your local supplier or Powermatic. Powermatic can also be reached at our web site: www.powermatic.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

Register your product using the mail-in card provided, or register online: www.powermatic.com/product-registration



AWARNINGRead and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

5.0 **Specifications**

Model NumberStock Number		
Phase		
Voltage		
Cycle	60 Hz	60 Hz
Motor		
Belt Size (in.)	9 x 138	9 x 138
Platen Size (in.)	47.5 x 10	47.5 x 10
Belt Operating Angle (degrees)	0 to 45	0 to 45
Table Working Height Range (in.)	34.75 to 40.125	34.75 to 40.125
Main Table Size (L x W, in.)	46 x 13 x 1.5	46 x 13 x 1.5
Main Table Vertical Travel (in.)	7.375	7.375
Main Table Horizontal Travel (in.)	4	4
End Table Size (in.)	21.653 dia	21.653 dia.
End Table Travel (in.)	5	5
Belt Speed (FPM)	1000 to 4200	1000 to 4200
Oscillations Speed (strokes per min.)	30 to 50	30 to 50
Oscillating Stroke (in.)	0.4	
Drive Wheel Diameter (in.)		
Idler Wheel Diameter (in.)		
Dust Connection Diameter (in.)		
Dust Collection Minimum CFM Required	1,100	
Base Size (in.)	40 x 18.5	40 x 18.5
Overall Dimensions (L x W x H) (in.)	. 74.375 x 29.25 x 45.5	74.375 x 29.25 x 45.5
Shipping Dimensions (L x W x H) (in.)	. 80.75 x 30.75 x 50.75	80.75 x 30.75 x 50.75
Weight, Shipping/Net (lbs.)	810/660	810/660

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, Powermatic reserves the right to change specifications at any time and without prior notice, without incurring obligations.

^{*}The PM1-263 model has an inverter to allow the 3-phase motor to run on a 1-phase circuit.

6.0 **Features**



Figure 6-1

7.0 Setup and Assembly

The sander main unit requires very little assembly. Set-up involves only removing sander from pallet, moving it to the desired location, and replacing the lifting eyebolts with hand knobs.

7.1 Shipping Contents

The items below are shipped with the sander.

- 1 Edge Sander
- 2 Hand Knobs*
- 1 Owner's Manual*
- 1 Warranty Card*
- * Located inside base cabinet

7.2 Unpacking and Cleanup

Inspect all contents from shipping container, including parts inside base cabinet (accessed through the rear door). Report any damage or part shortages to your distributor. Do not discard any shipping material until the sander is assembled and running properly.

Exposed metal surfaces, such as table surfaces, have been given a protective coating at the factory. This coating should be removed with a soft cloth moistened with solvent, such as mineral spirits. Do not use solvents with low flash points or allow solvents near plastic or rubber parts. Do not use an abrasive pad as it may scratch exposed surfaces.

Periodically apply a light coat of paste wax or other protectant to the table tops to prevent rusting.

7.3 Moving and Setup

- Lift the machine from the shipping skid with a hoist or forklift by attaching straps to the eyebolts on top the sander. See Figure 7-1. DO NOT fork beneath the main table, or damage to the table may occur.
- Move the machine to the desired installation location. Locate the sander in a dry, well-lighted area. Make sure the sander sits on a solid, level surface, preferably concrete. Provide plenty of space around the sander for operations and maintenance work.
- After locating the sander, remove the lifting straps. Remove the lifting eyebolts and install the two hand knobs in their place (see Figure 7-2). NOTE: Retain the lifting eyebolts for future use.
- Attach sander to electrical source. Follow instructions found in Section 8.0 Electrical Connections.



Figure 7-1



Figure 7-2

7.4 Dust Collection

A sander produces a significant volume of wood dust. The use of a dust collection system is strongly recommended. It will help keep the shop clean, as well as reduce potential health hazards caused by inhalation of wood dust. Make sure your dust collector has a minimum rating of 1100 CFM.

Powermatic has a full line of dust collection systems available. See your dealer or visit our website at www.powermatic.com.

Connect the hose of your dust collection system to the 4-inch dust port on the sander (see Figure 7-3). Secure hose tightly with a hose clamp.



Figure 7-3

8.0 Electrical Connections

AWARNING Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.

Before connecting to power source, be sure OFF button is pressed and the safety key is removed (see *Section 9.3*).

It is recommended that the sander be connected to a dedicated 15-amp circuit with a 15-amp circuit breaker or time-delay fuse marked "D". Local codes take precedence over recommendations.

8.1 **Grounding Instructions**

This machine must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation that is green, with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

electrician or service person if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded. Failure to comply may cause serious or fatal injury.

230V Operation

This sander is designed for use on a 230V circuit. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this machine. If the machine must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified electrician. After reconnection, the machine should comply with all local codes and ordinances.

You may hard-wire the machine directly to a control panel. If hard-wired to a panel, make sure a disconnect is available for the operator. Refer to Section 14 Electrical Connections for connecting the motor leads.

Make sure the voltage of your power supply matches the specifications on the motor plate of the machine.

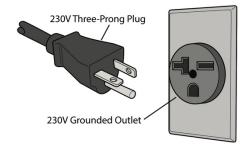


Figure 8-1: 230V Connection

8.2 Three-Phase Test Run

On the three-phase machine, after wiring is completed, you should perform a test run to make sure the wires are connected properly.

- 1. Connect machine to power source and press the start button (see Figure 6-1).
- The sanding belt should move left to right, as viewed from the front of the machine. If the sanding belt movement is incorrect, press the stop button (see Figure 6-1) and disconnect machine from power.
- 3. Switch any two of the three wires at "R,S,T".
- 4. Reconnect machine to power source.

8.3 Extension Cords

The use of extension cords is discouraged. If possible, position your machine within reach of the power supply. If an extension cord becomes necessary, use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. Make sure the cord rating is suitable for the amperage listed on the machine's motor plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

Do not use a damaged or worn extension cord. Repair or replace before use.

Use Table 1 as a general guide in choosing the correct size cord. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Recommended Gauges (AWG) of Extension Cords

Amp Ra	ating	Volts	Total length of cord in feet			t
More Than Not More Than	120 240	25 50	50 100	100 200	150 300	
					AWG	
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
	16		14	12	Not Recor	

9.0 Adjustments

Remove the safety key (A, Figure 9-1) from the power switch to guard against accidental startup while making adjustments. For safety key information, see Section 10.3.

9.1 Control and Adjustment Identification

Refer to Figures 9-1 and 9-2.

Sanding Machine Controls

Refer to Figures 9-1.

- A Safety Key
- **B** OFF Button
- C ON Button
- **D** Table Height Wheel
- E Sanding Belt Control Panel
- F Sanding Belt Tilt Wheel
- G Table Horizontal Shift Wheel



Figure 9-1: Control Panel

Sanding Belt Control Panel

Refer to Figures 9-2.

- H Oscillation Rate Adjust
- I Sanding Belt Speed Adjust
- J Sanding Belt Speed Digital Readout
- K Sanding Belt Angle Digital Readout
- L 0° Set Button
- M 45° Set Button
- N Machine Ready Light
- O Machine Problem Alarm Light



Figure 9-2: Control Panel

9.2 Adjusting Sanding Drum Tilt

Refer to Figures 9-1, 9-2, and 9-3.

Turning the sanding belt tilt wheel (F) clockwise will tilt the belt towards the 0° (90° to table) tilt stop. Turning the sanding belt tilt wheel counterclockwise will tilt the belt towards the 45° (135° to table) tilt stop. The belt angle will show on the sanding belt angle digital readout (K). The sanding belt 0° and 45° tilt stops have been factory set and should require no immediate adjustment. The settings should be confirmed by the operator to ensure accurate angle sanding. Both tilt stop screws (Q and S) are located on the trunnion (T) (see Figure 9-3).

9.2.1 Checking and Adjusting 0° (90° to table) and 45° Tilt Stops

Tools required:

- · Machinist square or adjustable square
- Adjustable wrench

Refer to Figures 9-1 through 9-5.

- Make sure machine is connected to the power supply.
- Make sure the oscillation rate-adjust knob (H) and sanding belt speed-adjust knob (I) are turned all the way to the left (counterclockwise). These positions turn the oscillation feature and the belt rotation off.
- Press the ON button (C). The button will illuminate when ON.
- Turn the sanding belt tilt wheel (F) clockwise until it stops.
- 5. Place 90° square on the table and against front of sanding belt (Figure 9-4).
- 6. If the belt is not at 0° (90° to the table), adjust the 0° stop screw (S). Loosen nut (R) on 0° stop screw (S) and turn the screw to proper height. Verify setting on square and sanding belt. Retighten nut (R) against the trunnion (T). Press the 0° set button (L) to save this corrected setting.

- 7. Turn the sanding belt tilt wheel (F) counterclockwise until it stops.
- 8. Set your adjustable square to 135° and place it on the table and against front of sanding belt (Figure 9-5).
- 9. If the belt is not at 135° (45° sanding angle), adjust the 45° stop screw (Q). Loosen nut (P) on 45° stop screw (Q) and turn the screw to proper height. Verify setting on square and sanding belt. Retighten nut (P) against the trunnion (T). Press the 45° set button (M) to save this corrected setting.
- 10. Press OFF button (B) to turn machine off.

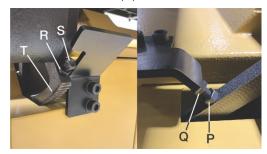


Figure 9-3: 90° and 45° Stop Screws

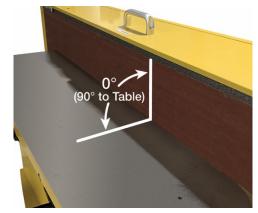


Figure 9-4: Adjusting Sanding Belt to 0° (90° to table)

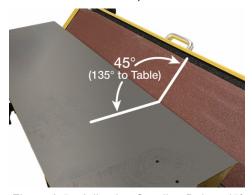


Figure 9-5: Adjusting Sanding Belt to 45°

9.3 Main Table Positioning

Refer to Figures 9-1 and 9-6.

The main table can be raised or lowered and moved horizontally to suit your workpiece.

Moving Table Up and Down

Turn table height wheel (D) clockwise to raise the table. Turn table height wheel counterclockwise to lower the table.

Moving Table Forward and Backwards (Horizontally)

Always adjust the horizontal table position to provide the minimum amount of clearance between the table back edge and the sanding belt. This will provide you with the best control of your workpiece.

Turn the table horizontal shift wheel (G) clockwise to shift the table backwards, away from the sanding belt. Turn the table horizontal shift wheel counterclockwise to shift the table forward, towards the sanding belt.



Figure 9-6: Main Table Positioning

9.4 Miter Gauge

Refer to Figures 9-7 and 9-8.

To Adjust Miter Gauge

- 1. Unscrew handle (U) just enough to loosen it.
- 2. Press black tab (V) to release it from stop 0°.
- 3. Rotate gauge body until red pointer (T) lines up with desired angle on scale.
- 4. Tighten handle (U).
- 5. There are 13 stops at 0°, 15°, 22.5°, 30°, 45°, 60°, and 67.5° left and right. Each of these can be adjusted to by allowing the spring stop to lock into each location. Press black tab (V) to move past each stop location.

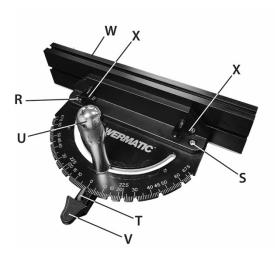


Figure 9-7

Extension Plate (see Figure 9-7)

The extension plate (W) can be adjusted by sliding to the right or left or removed entirely.

To adjust, loosen two *lock handles* (X), position the extension plate and retighten lock handles. **Make** sure end of extension plate is not in the sanding belt path.

NOTE: The lock handles (X) are adjustable. Pull out on a handle, rotate it to different position, then release, making sure it seats itself upon the pin.

To remove extension plate, slide it completely off and remove lock handles (X) and mounting hardware.

Squaring Miter Gauge (see Figure 9-8)

- 1. Place a square against miter gauge face, and against flat of sanding belt.
- 2. Loosen screws R and S.
- 3. Adjust the miter gauge fence to make it square to the sanding belt. Tighten screws R and S.
- 4. After squaring, if the red pointer (T) is not pointing at 0°, loosen the pointer setscrew (see Figure 9-8), rotate the pointer to 0°, and retighten the pointer setscrew.

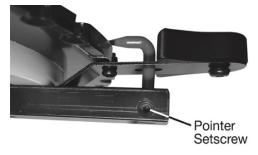


Figure 9-8

9.5 End Guard

Refer to Figure 9-9.

The end guard (A) on the right side of the machine can be swung out of the way for sanding long workpieces and for contour sanding using the end table (D). NOTE: The miter gauge will need to be removed for sanding long workpieces.

Loosen the lock knob (B) and swing open the end guard all the way. Secure the end guard by attaching it to the locking clasp (C). When finished with the operation, release the locking clasp, and close the end guard and tighten the lock knob (B).

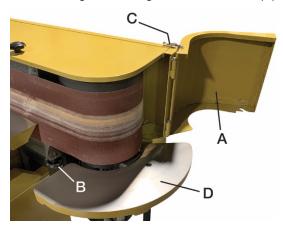


Figure 9-9

9.6 End Table

Refer to Figure 9-10.

The end table allows contour sanding. The end table can be raised and lowered. Open and secure the end guard before adjusting the end table (see *Section 9.5*).

Loosen the lock handle (A) and raise or lower the end table to the desired position. Tighten the lock handle to secure the end table.



Figure 9-10

9.7 Replacing Sanding Belt

Refer to Figures 9-11, 9-12, and 9-13.

- 1. Disconnect machine from power source.
- 2. Swing the end guard (A, Figure 9-9) out of the way (see Section 9.5). Open the belt guard (B).
- 3. Release tension on the belt by pulling the tension lever (C) all the way up until it stops against the screw head.
- 4. Remove the old sanding belt and replace with the new one.

NOTE: The belt's rotational direction must be the same as the machine. Identify the sanding belt direction before you install the belt. An arrow on the reverse side of the belt shows the proper direction. The belt will move left to right as viewed from the front of the machine. If the belt has no arrow indicator, find the joint of the belt (where it is layered) and install it according to Figure 9-13.

- 5. Tension the belt by pushing the tension lever (C) all the way down.
- 6. The sanding belt should now be checked for tracking. See Section 9.8 Tracking Adjustment.

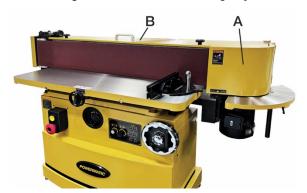


Figure 9-11



Figure 9-12

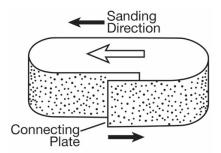


Figure 9-13

9.8 Tracking Adjustment

Refer to Figure 9-14.

"Tracking" refers to the position of the sanding belt on the drums while the sanding belt is in motion. For proper operation, the sanding belt should be centered upon the drive drum.

After installing a new sanding belt, the initial tracking adjustment should be done with the machine OFF. Make sure you remove the safety key to prevent accidental starting of the machine (see Section 10.3 Safety Key). Rotate the drums by hand and adjust the tracking mechanism as needed (see below).

After operating the machine, further minute adjustments may be needed to the tracking. This can be done with the machine turned ON and the sanding belt in motion. Turn the tracking adjustment knob (A) gradually and in small increments.

To adjust tracking, proceed as follows:

- Turn the adjustment knob (A) clockwise (towards rear of machine) to shift the belt upward and counterclockwise (towards the front of machine) to shift the belt downward.
- 2. When the belt is centered and tracking properly, close all guards.

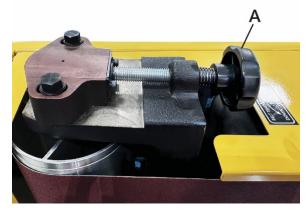


Figure 9-14

10.0 Operation

Your oscillating belt edge sander is designed and manufactured for long-term operation creating superior sanded surfaces for wood products. The oscillation of the belt helps prevent sanding marks in the workpiece and allows longer belt wear.

Always use the miter gauge, when possible, to support your workpiece.

This machine is suited for sanding wood products only. Do not use this machine for sanding metal products.

10.1 Operating Guidelines

- Keep the belt guard closed when operating the sander. Keep the end guard closed unless sanding long workpieces or performing contour sanding.
- 2. Set sanding belt at the desired angle (see Section 9.2).
- 3. Press sander power button to ON and adjust the sanding belt speed to desired setting. Allow it to reach full speed before starting work.
- 4. If desired, turn oscillation rate adjust knob clockwise to start the oscillation motion.
- 5. Firmly hold workpiece against table at all times.
- 6. For best results, feed workpiece against direction of sanding belt rotation.
- Adjust table height to best accommodate your workpiece. Adjust the tables horizontal position to be as close to the sanding belt as practical without contacting the belt.
- 8. To get the most from the oscillation feature, set the oscillation rate to a lower pace and set the belt speed at a high rate.

ACAUTION Keep fingers clear of sanding belt during operation.

10.2 Power Switch and Sanding Belt Speed, and Oscillation Feature

Refer to Figure 10-1.

To Start — Press green ON button (A). The button will illuminate when ON.

Belt Speed — With the sanding belt speed adjust knob (C) turned fully left, the belt will not move. Turn the knob clockwise to start the belt and set the desired belt speed. The sanding belt speed digital readout (E) will display the belt speed.

Oscillation — With the oscillation rate adjust knob (D) turned fully left, the oscillation feature is turned off. If oscillation is needed, turn the knob clockwise to start the oscillation motion. The oscillation rate will increase the further you turn the knob clockwise.

To Stop — Press the STOP button (B).

Reset — If the sander stops without pressing the STOP button, as the result of a tripped fuse or circuit breaker:

- 1. Press red STOP button (B) to reset.
- 2. Press green ON button (A) to restart machine.

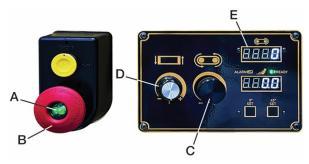


Figure 10-1

10.3 Safety Key

Refer to Figure 10-2.

The power switch has a yellow safety key (A). With the safety key removed, the sander cannot be started accidentally or used by an unauthorized person.

With sander OFF button pressed, rotate the safety key 90° counterclockwise. The safety key arrow will point to the "Remove" arrow on the power switch housing. Pull safety key outward and remove it from switch. Since the safety key has a magnetic backing, it can be placed on the metal surface of the sander until ready to replace on the power switch. If you are keeping unauthorized users from starting the machine, store the key in a safe place. The key must be re-installed before sander can be turned on.

To re-install, place the key into the safety key seat with the safety key arrow pointing to the "Remove" arrow on the power switch housing. The magnetic safety key will snap into place. Turn the safety key 90° clockwise so the safety key arrow is pointing to the "Lock" arrow on the power switch housing.



Figure 10-2: Safety Key

11.0 Maintenance

Always disconnect power to the machine and remove the safety key before performing maintenance. Failure to do this may result in serious personal injury.

Periodically check both drums. The drums are made of rubber material and may experience wear after a long period of use, at which time they should be replaced.

The sander should be cleaned frequently.

Check all screws, hex nuts, and other fasteners to make sure they are tight.

Check condition of sanding belt. If belt is worn, replace it.

If the power cord is worn, cut, or damaged in any way, have it replaced immediately.

The table should be kept clean and free of rust. If rust appears on the table, use 000 steel wool with a paste mixture of household ammonia and good commercial detergent (or use a commercial rust remover available from most hardware and tool supply stores).

Some users coat their table surface with a light coat of paste wax. (Do not get paste wax on the sanding belt.) Another option is to apply talcum powder to the table surface and rub it in briskly with a clean blackboard eraser. This will also maintain a slick surface and will not stain wood.

11.1 Lubrication

All ball bearings are sealed for life and do not require further lubrication.

Periodically apply grease to the trunnion teeth for smooth operation of the belt angle worm gear mechanism (see Figure 11-1).



Figure 11-1

12.0 Troubleshooting

Trouble	Probable Cause	Remedy
Machine will not start/restart or	Machine not connected to power source.	Verify machine is connected to power.
repeatedly trips circuit breakers or blows fuses.	Fuse blown, or circuit breaker tripped.	Replace fuse or reset circuit breaker.
	Cord damaged.	Replace cord.
	Extension cord too light or too long.	Use adequate size extension cord.
	Power line overload.	Press red STOP button. Correct overload condition. Use dedicated circuit for sander.
	Edge Sander frequently trips.	Match the full load amps on the motor as noted on the motor plate. If amp setting is correct, there is probably a loose electrical lead or a failed component. See below.
	Building circuit breaker trips or fuse blows.	Verify that edge sander is on a circuit of correct size. If circuit size is correct, there is probably a loose electrical lead.
	Loose electrical connections.	Go through all the electrical connections on the edge sander including motor connections, verifying the tightness of each. Look for any signs of electrical arcing which is a sure indicator of loose connection or circuit overload.
	Motor starter failure.	If you have access to a voltmeter, you can separate a starter failure from a motor failure by first, verifying incoming voltage is correct and second, checking for correct voltage between starter and motor. If incoming voltage is incorrect, you have a power supply problem. If voltage between starter and motor is incorrect, you have a starter problem. If voltage between starter and motor is correct, you have a motor problem.
	Motor failure.	If electric motor is suspect, you have two options: Have a qualified electrician test the motor for function or remove the motor and take it to a qualified electric motor repair shop and have it tested.
Machine will not start/restart or repeatedly trips circuit breakers or blows fuses.	Miswiring of the unit.	Check to make certain all electrical connections are correct and properly tight. The electrical connections other than the motor are preassembled and tested at the factory. Therefore, the motor connections should be checked as the highest probability for error. If problems persist, double check the factory wiring.
	On/off switch failure.	If the on/off switch is suspect, you have two options: Have a qualified electrician test the switch for function or purchase a new on/off switch and establish if that was the problem on changeout.
Sanding belt won't come up to speed.	Extension cord too light or too long.	Use adequate size extension cord.
	Low (incoming) voltage.	Contact qualified electrician.

Trouble	Probable Cause	Remedy	
Sanding belt won't come up to speed.	Excessive bite, or feed pressure too great.	Allow sanding belt to cut freely, do not force.	
Belt won't track.	Drum is worn.	Replace drum.	
	Belt is stretched unevenly.	Replace belt.	
Belt slips or stalls on application of pressure.	Sanding belt tension not adequate.	Make sure lever is down all the way.	
Excessive sanding belt replacement.	Too much pressure being used during cuts.	Reduce pressure.	
	Not using full width of belt.	Stroke across the belt using full width.	
Machine vibrates	Improper motor mounting.	Check and adjust mounting.	
excessively.	Spring on tension mechanism is fatigued or broken.	Replace with new spring.	
	Drum is loose.	Tighten cap screw in motor.	
	Bad or broken sanding belt.	Replace sanding belt.	
Sanding marks on workpiece.	Sanding belt too coarse for required finish.	Use proper grit. Coarser grits for stock removal, and finer grits for finish work.	
	Workpiece sanded across grain.	When surface sanding, use very fine sanding belt then finish by hand, working in direction of grain.	
Sanding grains quickly rub off belt.	Sanding belt has lost its original properties.	Do not store sanding belts in extremely dry or high-temperature areas. Do not fold sanding belts.	
Sanding belt	Sanding painted surface.	Use open-end grain/flint belt.	
becomes glazed.	Wood is wet or gummy.	No cure. Use different stock.	
Work burns.	Wrong sanding belt surface.	Use coarser grit for stock removal.	
	Feed pressure too great.	Never force workpiece into steel platen. Use just enough pressure and let the sanding belt do the work.	
Sanding belt burns, or clogs quickly on thickness sanding.	Biting too deep.	Adjust for slight sanding action and make repeated passes.	
Workpiece pulled from hand.	No support for workpiece.	Use miter gauge on table.	
Sanding belt has broken at the joint.	Belt running in wrong direction.	Orient direction of arrows printed on sanding belt to match rotation of drums. Sanding belt should move left to right as viewed from front of machine.	
Sanded edge is not square.	Result of freehand sanding.	Keep workpiece flat on table at all times when a square edge is desired. Use miter gauge.	
	Sanding belt angle misaligned.	Check belt angle alignment to table with a square or machinist's protractor. It should be 90 degrees. Adjust belt angle if necessary.	

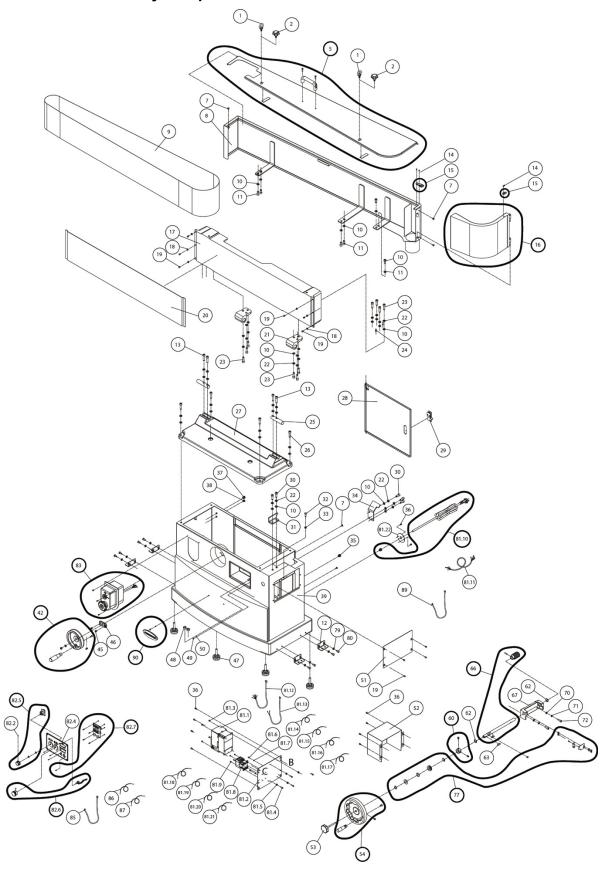
13.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Powermatic.

Some parts are shown for reference only and may not be available individually.

13.1.1 Base Assembly – Exploded View

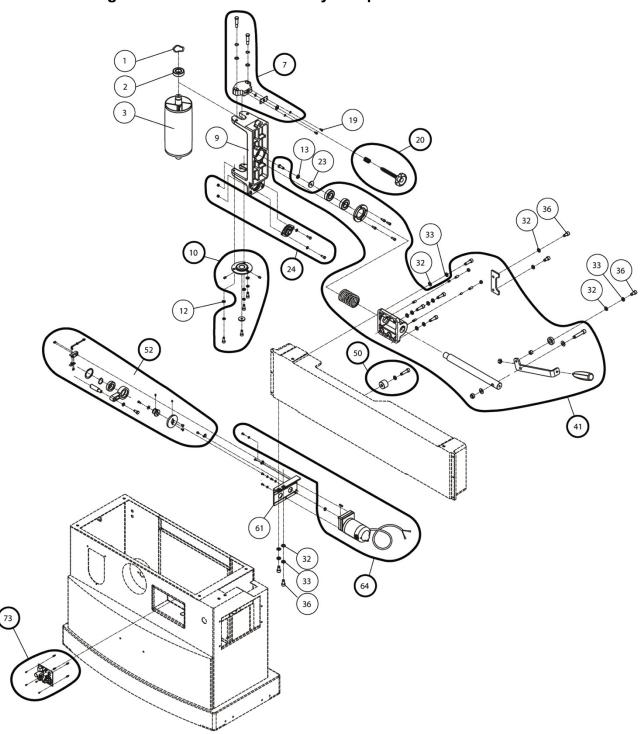


13.1.2 Base Assembly – Parts List

Index No	Part No	Description	Size	Qty
		. Eyebolt		
		. Lock Knob		
5	OES9138B-505K	. Top Cover Assembly (incl. belt tracking label)		1
		. Rubber Pad		
8	Part Not Offered	. Side Cover		1
		. Abrasive Belt		
10	Part Not Offered	. Flat Washer	10.5x19x1.5T, Grd 4.6 .	23
		. Socket Head Cap Screw		
		. Fixed Plate		
		. Socket Head Cap Screw		
		. Phillips Flat Head Machined Screw		
		. Toggle Latch		
		. Drive Roller Cover Assembly (incl. abrasion		
		. hazard label and running direction label)		1
		. Platen		
		. Flat Washer		
		. Socket Head Button Screw		
		. Graphite Pad		
		. Hinge		
		. Lock Washer		
		. Socket Head Cap Screw		
		. Solid Pin		
		. Pivot Shaft		
		. Socket Head Cap Screw		
		. Base		
		. Cabinet Door		
		. Door Latch		
		. Socket Head Cap Screw		
31	Part Not Offered	. Belt 45-degree Stop		1
32	Part Not Offered	. Hex Cap Screw	M8x1.25Px25L, Grd 4.6	1
		. Hex Nut		
		. Belt 90-degree Stop		
		. Strain Relief		
36	Part Not Offered	. Phillips Pan Head Machined Screw	M6x1.0Px10L, Grd 4.6 .	10
		. Strain Relief		
		. Strain Relief		
		. Cabinet		
		. Handwheel Assembly		
		. Phillips Pan Head Machined Screw w/Washer		
		. Bracket		
		. Leveling Pad		
48	Part Not Offered	. Cable Protection Bushing	NB-1925	2
		. Phillips Pan Head Machined Screw		
		. Star Washer		
51	Part Not Offered	. Side Cover		1
		. Inverter Assembly Cover		
		. Locking Knob		
		. Handwheel Assembly		
		. Spacer Assembly		
		. Flat Washer		
		. Key		
		. Tilt Handwheel Shaft Assembly		
		. Tilt Worm Shaft Base		
		. Flat Washer		
		Lock Washer		
		Socket Head Cap Screw		
		. Hall Sensor Assembly		
		. Flat Washer		
ου	art Not Offered	. Hex Cap Screw	MOX I.ZOPX TOL, Gra 4.6	გ

Index No	Part No	Description	Size	Qty
81.1	OES9138B-581-1	. Inverter	230V / 1Phase	1
	OES9138B-581-1A	. Inverter	230V / 3Phase	1
81.2	OES9138B-581-2	. Inverter Plate		1
		. Hex Nut		
		. Plastic Screw		
81.5	TS-1550041	. Flat Washer	6.1x12.5x3.5T, Grd 4.6	4
81.6	TS-1532032	. Phillips Pan Head Machined Screw	M4x0.7Px10L, Grd 4.6	4
81.7	OES9138B-581-7	. Star Washer	M4	2
81.8	OES9138B-581-8	. Contactor	230V / 60Hz	1
81.9	OES9138B-549	. Phillips Pan Head Machined Screw	M4 x 0.7P x 6L	2
81.10	OES9138B-581-10K	. Power Cable Assembly (for Single Phase)	SJT 12AWGx3Cx2300mr	n1
		. Power Cable Assembly (for 3 Phase)		
81.11	OES9138B-581-11	. Motor Cable	SJT 16AWGx3Cx2350mr	n1
		. Connection Cable		
81.13	Part Not Offered	. Connection Cable	24AWG x 2C x 900mm	1
		. Connection Cable (for Single Phase)		
		. Connection Cable (for 3 Phase)		
81.15	OES9138B-581-15	. Connection Cable (for Single Phase)	18AWGx1Cx900mm L2/W	/H 1
		. Connection Cable (for 3 Phase)		
		. Connection Cable		
		. Connection Cable		
81.18	OES9138B-581-18	. Connection Cable	18AWGx1Cx600mm MI4/8	3K . 1
		. Connection Cable		
81.20	Part Not Offered	. Connection Cable (for Single Phase)	18AWGx1Cx900mm A/BK	1
		. Connection Cable (for 3 Phase)		
81.21	OES9138B-581-21	. Connection Cable (for Single Phase)	18AWGx1Cx900mmxL1/V	VH . 1
	OES9138B-581-21A	. Connection Cable (for 3 Phase)	18AWGx1Cx900mmxL1/B	K 1
81.22	Part Not Offered	. Strain Relief Plate		1
82.2	Part Not Offered	. Set Screw	M4 x 0.7P x 6L	2
82.4	OES9138B-582-4	. Control Panel		1
82.5	OES9138B-582-5K	. OSC Pot Assembly	10KΩ	1
82.6	OES9138B-582-6K	. Belt Speed Pot Assembly	10KΩ	1
		. Display Assembly		
83	OES9138B-540K	. Magnetic Switch Assembly		1
		. Switch Box Cover w/Safety Key (not shown)		
	OES9138B-540-3	. Switch Cover (not shown)		1
		. Connection Cable		
86	OES9138B-586	. Connection Cable (for Single Phase)	18AWGx1Cx300mm Bl	1
		. Connection Cable (for 3 Phase)		
87	OES9138B-587	. Connection Cable (for Single Phase)	18AWGx1Cx300mm W	H1
		. Connection Cable (for 3 Phase)		
89	OES9138B-589	. Angle Hall Connection Cable	24AWGx4Cx600mm	1
		. Powermatic Logo Assembly		
	PM2000B-1133	. Black Stripe (not shown)	1 INCH Wp	er ft.
	OES9138B-594	. Input Power Label (not shown)		1
	OES9138B-595	. Abrasion Hazard Label (not shown)		1
	OES9138B-596	. Running Direction Label (not shown)		1
	OES9138B-598	. Table Elevation Label (not shown)		1
	OES9138B-599	. Belt Tracking Label (not shown)		1
		. Belt Tilt Label (not shown)		
		. Control Panel Label (not shown)		
	OES9138B-5102	. Warning Label (not shown)		1
	OES9138B-5104	. Belt End Cover Label (not shown)		1
		. ID Label (not shown)		
	О С С О 100 Б С 100			
	OES9138B-5106	. ID Label (not shown)	3Ph / 230V	1
	OES9138B-5106		3Ph / 230V	1 1

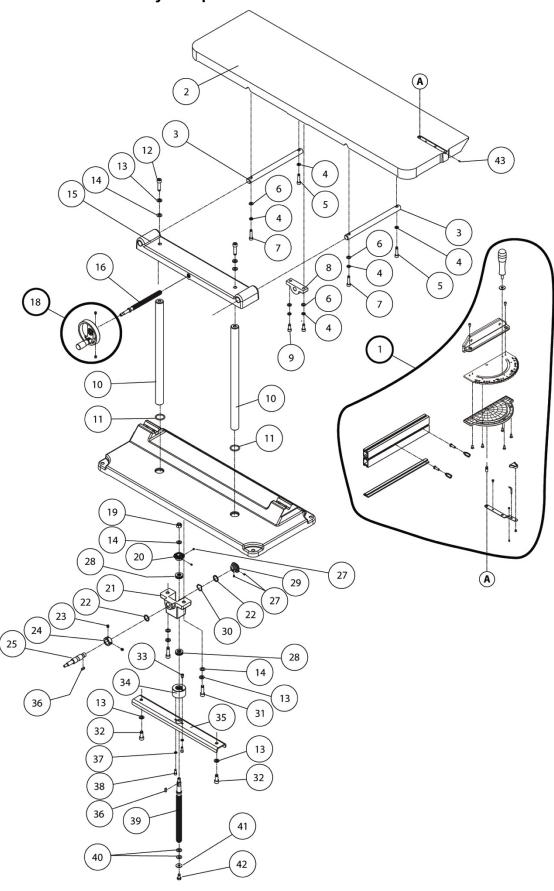
13.2.1 Tracking and Belt Release Assembly – Exploded View



13.2.2 Tracking and Belt Release Assembly – Parts List

Index No Part No	Description	Size	Qty
1Part Not Offered	Wave Washer	BWW-6205	1
2BB-6205VV	Ball Bearing	6205VV	3
3OES9138B-403	Driven Roller		1
7OES9138B-407K	Bracket Assembly		1
9Part Not Offered	Bracket		1
10OES9138B-410K		SBPF205	1
12TS-1550061		8.5x16x1.5T, Grd 4.6	4
13OES9138B-413			
19TS-1502021			
20OES9138B-420	1 1 - 3 1		
23OES9138B-423			
24OES9138B-424K	Spherical Bearing Assembly		
32OES9138B-432	Flat Washer	10.5 x 19 x 1.5T	10
33Part Not Offered	Lock Washer		
36Part Not Offered	Socket Head Cap Screw		
41OES9138B-441K	Lever Arm Assembly		1
50OES9138B-450	Pad Assembly		
52OES9138B-452K			
61Part Not Offered	Mount Plate		
64OES9138B-464K	Oscillating Motor Assembly		
73OES9138B-473	Oscillating Motor Drive Assembly		1

13.3.1 Table Assembly – Exploded View

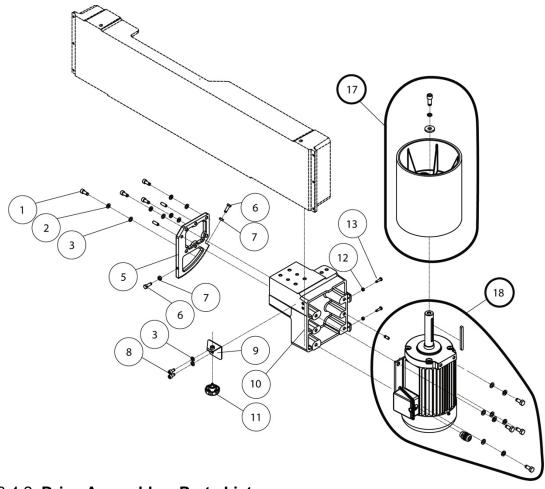


13.3.2 Table Assembly - Parts List

Index No.	Part No.	Description	Size	Qty
1	.OES9138B-301	. Miter Gauge Assembly		1
1.1	.PM1500-109T-01	. Gauge Plate Locking Handle		1
1.2	.TS-1550061	. Flat Washer	8.5x23x2.0T, Grd 4.6	1
1.3	.TS-1502011	. Socket Head Cap Scre	M5x0.8Px8L, Grd 12.9	2
		Fence Rest		
		. Gauge Plate		
1.6	PM2000B-MGAT-06	. Non-Marring Bottom Plate		1
1.7	TS-1533042	Phillips Flat Head Screw	M5x0 8Px12l Grd 4.6	5
		Fence Locking Handle		
1.0	TS-0050031	. Hex Cap Screw	In 1/4-20NCv3/41 Grd 4	6 2
		. Thumb Tab		
		Bracket		
		. Phillips Pan Head Screw		
		. Phillips Pan Head Screw		
		. Pointer		
		Positive Tab		
		Phillips Flat Head Screw		
		. Pivot Shaft		
1.18	.PM2000B-MGAT-24.	. Fence		1
		Non-Marring Bottom Plate for Fence		1
		. Table Assembly (incl table caution label & table		
		. Horizontal movement label)		
		. Horizontal Guide Bar		
		. Lock Washer		
		. Socket Head Cap Screw		
		. Flat Washer		
		. Socket Head Cap Screw		
		. Bracket		
		. Socket Head Cap Screw		
10	.OES9138B-310	. Vertical Guide Bar		2
11	.OES9138B-311	. O-Ring	P30	2
12	.OES9138B-312	. Socket Head Cap Screw w/threadlocker	M10 x 1.5P x 30L	2
13	.Part Not Offered	. Lock Washer	M10, Grade 4.6	6
14	.Part Not Offered	. Flat Washer	10.5x19x1.5T, Grd 4.6	2
15	.OES9138B-315	. Bracket	·· ······	1
16	.OES9138B-316	. Lead Screw		1
		. Handwheel Assembly		
		. Nylon Lock Hex Nut		
		Bevel Gear		
		Bevel Gear Housing		
		Flat Washer		
		Set Screw w/threadlocker		
		. Collar		
		Shaft		
		Set Screw w/threadlocker		
		. Thrust Bearing		
		Bevel Gear		
		. Wave Washer		
		. Socket Head Cap Screw		
		Socket Head Cap Screw w/threadlocker		
		Socket Head Cap Screw		
		. Special Nut		
		. Connection Bracket		
		. Key		
		Lock Washer		
		. Socket Head Cap Screw w/threadlocker		
		Lead Screw		
40	.Part Not Offered	. Nylon Washer	20 x 10.2 x 2T	2

Index No.	Part No.	Description	Size	Qty
41	.Part Not Offered	. Flat Washer	. 8.5x23x2.0T, Grd 4.6	1
42	.Part Not Offered	. Hex Cap Screw	. M8x1.25Px16L, Grd 4.6.	1
43	.TS-1521011	. Set Screw	. M4x0.7Px4L, Grd 12.9	1
	.OES9138B-344	. Table Caution Label (not shown)		1
	OFS9138B-345	Table Horizontal Movement label (not shown)		1

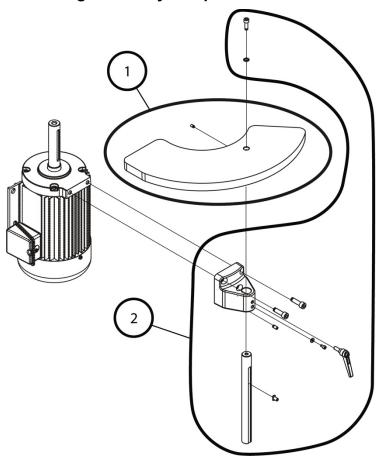
13.4.1 **Drive Assembly – Exploded View**



13.4.2 **Drive Assembly – Parts List**

Index No Part No	Description	Size G	Qty
1TS-1504051	. Socket Head Cap Screw	M8x1.25Px25L, Grd 12.9	4
2TS-2361081	. Lock Washer	M8, Grd 4.6	4
3Part Not Offered	. Flat Washer	8.5x16x1.5T, Grd 4.6	4
5Part Not Offered	. Tilt Gear Bracket		1
6TS-1490041	. Hex Cap Screw	M8x1.25Px25L, Grd 4.6	2
7TS-2311081	. Hex Nut	M8x1.25P, Grd 4.6	2
8Part Not Offered	. Socket Head Cap Screw	M8x1.25Px16L, Grd 12.9	2
9Part Not Offered			
10Part Not Offered	. Motor Mount Bracket		1
11OES9138B-111	. Lock Knob		1
12Part Not Offered	. Hex Nut	M6x1.0P, Grd 4.6	2
13Part Not Offered	. Hex Cap Screw	M6x1.0Px25L, Grd 4.6	2
17OES9138B-117	. Drive Roller Assembly		1
18OES9138B-118K	. Motor Assembly	3HP/230V/60HZ/3PH	1
OES9138B-122			

13.5.1 Contour Sanding Assembly – Exploded View

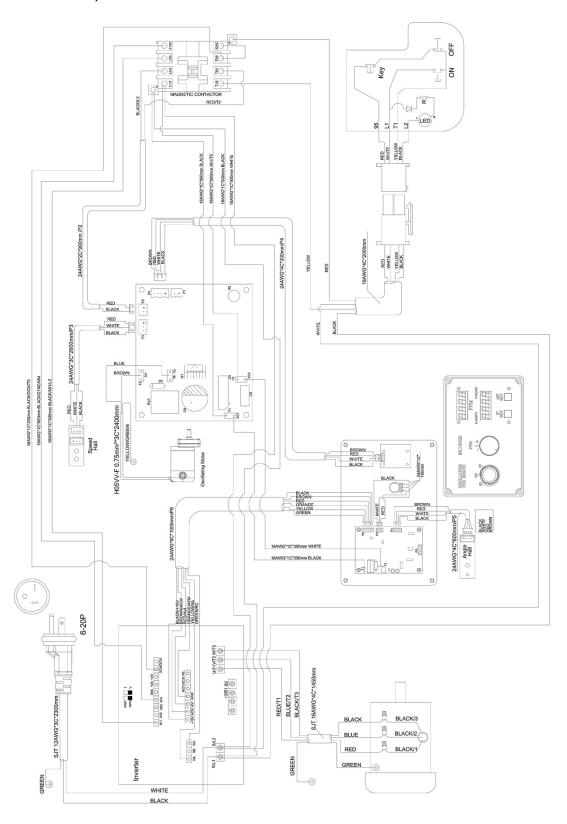


13.5.2 Contour Sanding Assembly – Parts List

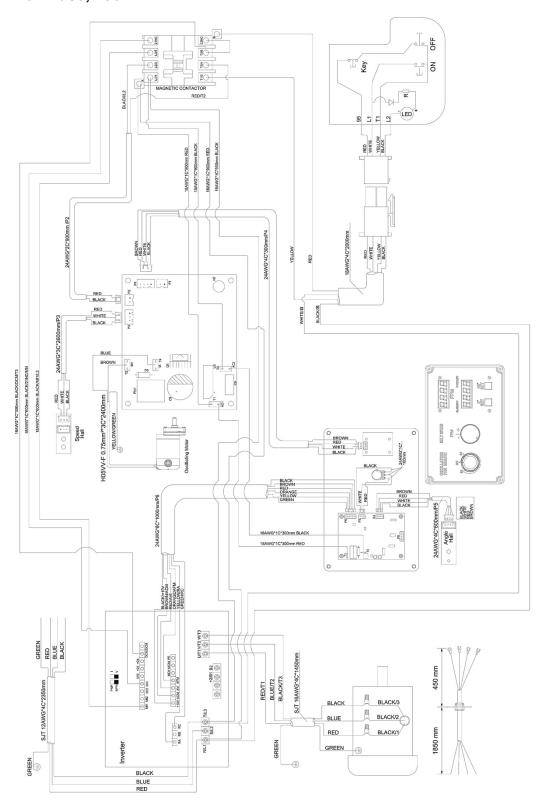
Index No	Part No	Description	Size	Qty
1	OES9138B-207K	. Side Table Assembly		1
			y	

14.0 Electrical Connections

14.1 **1 Phase, 230V**



14.2 3 Phase, 230V



NOTES

NOTES



427 New Sanford Road LaVergne, Tennessee 37086 Phone: 800-274-6848 www.powermatic.com