

# POWERMATIC®

## Operating Instructions and Parts Manual Oscillating Spindle Sander Model OSS10



**POWERMATIC**  
427 New Sanford Road  
La Vergne, TN 37086  
Ph.: 800-274-6848  
www.powermatic.com

**Part No. M-PM1-266**  
Edition 3 11/2024  
Copyright © 2024 Powermatic

# 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
3.0 Safety Warnings.....	4
4.0 About this Manual.....	5
5.0 Specifications.....	6
6.0 Setup and Assembly.....	7
6.1 Shipping Contents.....	7
6.2 Additional Tools Required.....	7
6.3 Unpacking and Cleanup.....	7
6.4 Removal from Shipping Pallet and Removing Shipping Bracket.....	8
6.5 Drum, Spindle, & Insert Storage.....	8
6.6 Installing/Removing Spindles.....	8
6.7 Installing and Leveling Table Insert.....	10
6.8 Combination Wrench Storage.....	10
6.9 Dust Collection.....	10
7.0 Electrical Connections.....	11
7.1 Grounding Instructions.....	11
7.2 Extension Cords.....	11
8.0 Adjustments.....	12
8.1 Sanding Drum Tilt for Bevel Sanding.....	12
8.2 Adjusting Sanding Drum Tilt Stops.....	12
9.0 Operation.....	13
9.1 Operating Guidelines.....	13
9.2 Power Switch and Spindle Speed.....	13
9.3 Spindle Oscillating Switch.....	13
9.4 Safety Key.....	14
10.0 Maintenance.....	14
10.1 General Maintenance.....	14
10.2 Lubrication.....	14
11.0 Troubleshooting OSS10 Spindle Sander.....	15
12.0 Replacement Parts.....	15
12.1.1 OSS10 Oscillating Spindle Sander – Exploded View.....	16
OSS10 Oscillating Spindle Sander – Exploded View.....	17
12.1.2 OSS10 Oscillating Spindle Sander – Parts List.....	18
12.2.1 OSS10 Spindle and Drum Assembly– Exploded View.....	21
12.2.2 OSS10 Spindle and Drum Assembly– Parts List.....	22
13.0 Electrical Connections.....	23



### 3.0 Safety Warnings

1. Read and understand the entire owner's manual before attempting assembly or operation.
2. 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.
3. Replace the warning labels if they become obscured or removed.
4. This spindle 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 spindle sander, do not use until proper training and knowledge have been obtained.
5. 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 spindle sander. Everyday eyeglasses only have impact resistant lenses; they are *not* safety glasses.
7. 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.
9. 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.
12. 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.
19. 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 spindle 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 tools with care. Follow instructions for lubricating and changing accessories.
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 2 (see sect. 7.2) 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.
29. 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. Maintain control of workpiece at all times. Firmly hold workpiece down against table while sanding.
32. 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.
33. Do not sand workpieces that are too small to be safely supported.
34. Always use appropriate table insert for the selected spindle or drum. Do not sand without a table insert in place.
35. Allow machine to reach operating speed before beginning to sand.
36. Do not operate this sander with a damaged spindle or sanding sleeve.
37. Always feed work against direction of spindle rotation.

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

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

**WARNING** 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 Model OSS10 Oscillating Spindle Sander. 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](http://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](http://www.powermatic.com/product-registration)



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

## 5.0 Specifications

Model number ..... **OSS10**  
 Stock number ..... PM1-266

### Motor and electricals:

Spindle motor type ..... Totally enclosed BLDC Motor  
 Horsepower ..... 1 HP (0.75kW)  
 Phase ..... Single  
 Voltage ..... 115V  
 Cycle ..... 60Hz  
 Listed FLA (full load amps) ..... 12A  
 Starting amps ..... 2.2A  
 Running amps (no load) ..... 1.5A  
 Power transfer ..... PCBA drive  
 Oscillating motor ..... 30W, DC24V, 2.0A, 1800 RPM, DC  
 Power cord ..... 6 ft., 3 x 16 AWG  
 Power plug installed ..... NEMA 5-15P (Type B)  
 Control switch ..... Paddle with safety key  
 Recommended circuit and fuse/breaker size <sup>1</sup> ..... 15A  
 Sound emission <sup>2</sup> ..... 80 dB at 100cm, 83 dB at 50cm

### Spindle:

Oscillations per minute ..... 60  
 Oscillation length ..... 1-1/2"  
 Spindle speed ..... 600 ~ 1800 RPM  
 Spindle lock ..... Yes

### Materials:

Main table ..... Ground cast iron  
 Trunnion ..... Steel  
 Cabinet ..... Steel  
 Base ..... Steel  
 Sanding drums ..... Rubber  
 Paint finish ..... Powder coating

### Table:

Table dimensions ..... 24-1/2"W x 24-1/2"L (622 x 622mm)  
 Table height from floor ..... 39-13/16" (1015mm)  
 Spindle tilt ..... 0-45° (Front 0°, back 45°)  
 Distance from spindle center to front of work table ..... 17-61/64" (456mm)  
 Table inserts (pcs.) ..... 6  
 Spindle sizes ..... 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/2", 2", 3", 4"

### Dimensions:

Cabinet footprint ..... 22-7/8" x 22-7/8" (580 x 580 mm)  
 Overall dimensions ..... 25-13/16"L x 24-1/2"W x 39-13/16"H (650 x 622 x 1015mm)  
 Overall dimensions, shipping ..... 25-13/16"L x 25-13/16"W x 45-5/8"H (650 x 650 x 1160mm)

### Dust collection:

Dust port outside diameter ..... 4" (100mm)  
 Minimum extraction volume required ..... 300 CFM (27 CMM)

### Weights

Net weight ..... 335 lb (150 kg)  
 Shipping weight ..... 390 lb (175 kg)

<sup>1</sup> subject to local/national electrical codes.

<sup>2</sup> the specified values are emission levels and are not necessarily to be seen as safe operating levels. As workplace conditions vary, this information is only intended to allow the user to make a better estimation of the hazards and risks involved.

The specifications in this manual were current at time of publication, 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.

## 6.0 Setup and Assembly

The sander main unit requires no assembly. Set-up involves only removing sander from pallet, and installing desired table insert and spindle/sleeve combination.

### 6.1 Shipping Contents

The items below are shipped with the sander.

Refer to Figure 6-1.

- 1 Spindle sander (not shown)
- 6 Table insert plates:
  - #1 for 4" rubber drum (at 45°) – A
  - #2 for 3" & 4" rubber drum – B
  - #3 for 1.5", 2" & 3" rubber drum – C
  - #4 for 1", 1.5" & 2" rubber drum – D
  - #5 for 1/4" thru 1" rubber drum – E
  - #6 for 1/4" thru 5/8" rubber drum – F
- 1 Rubber drum with sleeve 4" – G
- 1 Rubber drum with sleeve 3" – H
- 1 Rubber drum with sleeve 2" – J
- 1 Rubber drum with sleeve 1-1/2" – K
- 1 Rubber drum with sleeve 1" – L
- 1 3/4" Sanding sleeve – M
- 1 5/8" Spindle with sanding sleeve – N
- 1 1/2" Spindle with sanding sleeve – O
- 1 3/8" Spindle with sanding sleeve – P
- 1 1/4" Spindle with sanding sleeve – Q

- 1 Combination wrench – R
- 1 3/4" Spindle – S
- 1 Spindle hex nut – T
- 4 Hex wrenches – 2.5, 3, 4, 5, & 6mm – U

### 6.2 Additional Tools Required

- Socket wrench set
- Adjustable wrench
- 2.5mm hex wrench
- Machinist square
- Straight edge

### 6.3 Unpacking and Cleanup

Inspect all contents from shipping carton, including parts inside cabinet (accessed through the side door). Report any damage or part shortages to your distributor.

Exposed metal surfaces, such as table surface, 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 top to prevent rusting.



Figure 6-1

## 6.4 Removal from Shipping Pallet and Removing Shipping Bracket

1. Open cabinet door (see Figure 6-4) and remove accessories.
2. Use socket wrench to unscrew two bolts securing machine to pallet.
3. Move sander off shipping pallet with help from an assistant.
4. Remove and discard shipping bracket cap screws (A), hex nut (B), and shipping bracket (C) (see Figure 6-2).

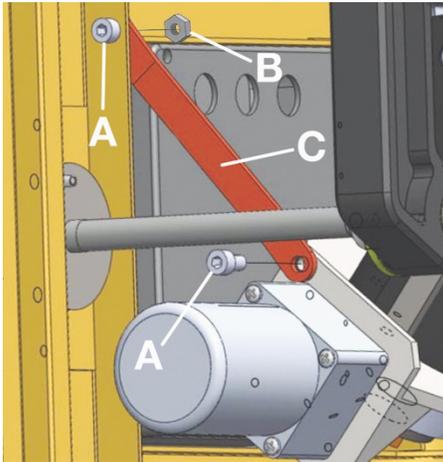


Figure 6-2: Removing Shipping Bracket

## 6.5 Drum, Spindle, & Insert Storage

Keep drums, spindles and table inserts protected by storing them in cabinet (Figure 6-3). To open door, lift bottom of latch and rotate counterclockwise 90 degrees (Figure 6-4). Reverse procedure to close cabinet door.



Figure 6-3: Cabinet Storage

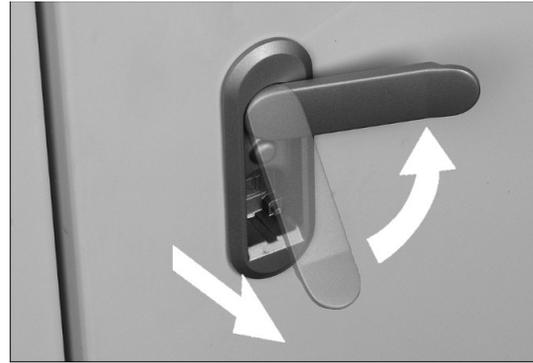


Figure 6-4: Door Latch

## 6.6 Installing/Removing Spindles

**⚠WARNING** Disconnect sander from power source when installing or removing sanding assemblies. Failure to comply may cause serious injury.

Note: Before disconnecting sander from power source, turn on oscillating motor. Turn off oscillating motor when the spindle main shaft (F, Figure 6-6) is at its highest position in the oscillation cycle. Turn machine off using the main power switch and disconnect sander from power source at this time.

Remove table insert, if installed, and open rear cabinet door.

Thoroughly clean tapered area (A, Figure 6-6) on all spindle assemblies before installing. Also, clean main shaft (F) on sander.

### 6.6.1 Small Sleeve Spindles

Refer to Figures 6-5 and 6-6.

1. Slide sanding sleeve (B) onto spindle, ensuring that it slides into collar (C).
2. Tighten set screw on collar (C) with provided 3mm hex wrench. Do not overtighten.
3. Pull on sleeve to ensure it is secure.
4. Position spindle taper (A) into main shaft (F) and hold.
5. Rotate nut (D) clockwise by hand, as viewed from above. Continue rotating nut until spindle seats (stops turning with nut), then continue rotating nut until it is hand tight.
6. Slightly pull spindle lock knob out and turn 90° to locked (vertical) position (see Figure 6-5). Release lock knob and spindle lock shaft will spring forward into place. Note: Rotate spindle to ensure proper engagement.
7. Use provided combination wrench to tighten nut (D) further. Do not overtighten.
8. Slightly pull spindle lock knob out and turn 90° to unlocked (horizontal) position (see Figure 6-5). Release lock knob and it will spring forward into place.

**CAUTION** Make sure spindle lock knob is in the unlocked, horizontal position before turning sander on. Damage to motor may result if spindle lock is engaged.

**NOTE:** As a safety measure, the rear cabinet door will not close if the spindle knob is in the locked position.

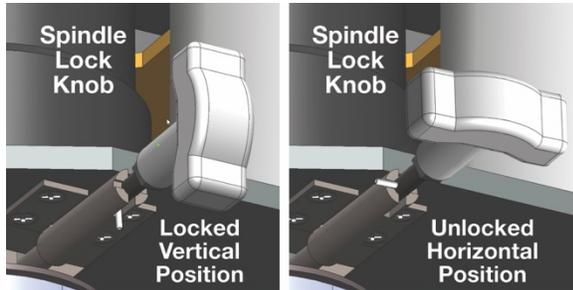


Figure 6-5: Spindle Lock Knob

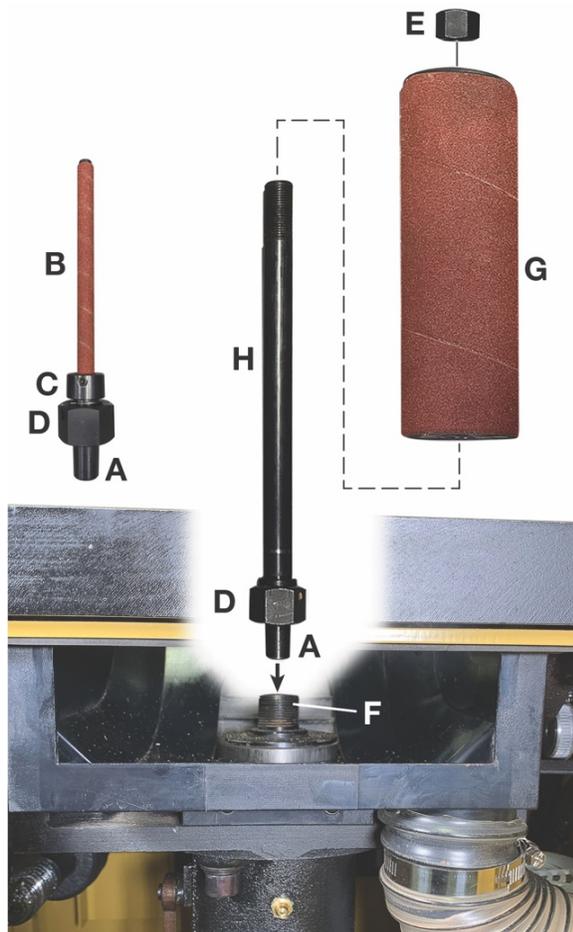


Figure 6-6: Spindle and Drum Mounting

## 6.6.2 Rubber Drums

Refer to Figures 6-5 and 6-6.

1. Position spindle taper (A) into main shaft (F) and hold.
2. Rotate nut (D) clockwise by hand, as viewed from above. Rotate nut until spindle seats (stops turning with nut), then continue rotating nut until it tightens.
3. Slightly pull spindle lock knob out and turn 90° to locked (vertical) position (see Figure 6-5). Release lock knob and spindle lock shaft will spring forward into place. Note: Rotate spindle to ensure proper engagement.
4. Use provided combination wrench to tighten nut (D) further. Do not overtighten.
5. If not previously installed, slide sanding sleeve completely onto drum until its bottom edge is even with drum.
6. Slide drum/sleeve assembly (G) down fully onto spindle (H).
7. Install hex nut (E) onto spindle threads and tighten clockwise (as viewed from above) with provided combination wrench.
8. Pull on sleeve to ensure it is secure. If it slides, tighten nut (E) a bit further. Do not overtighten.
9. Slightly pull spindle lock knob out and turn 90° to unlocked (horizontal) position (see Figure 6-5). Release lock knob and it will spring forward into place.

**CAUTION** Make sure spindle lock knob is in the unlocked, horizontal position before turning sander on. Damage to motor may result if spindle lock is engaged.

**NOTE:** As a safety measure, the rear cabinet door will not close if the spindle knob is in the locked position.

## 6.7 Installing and Leveling Table Insert

Tools required:

- 2.5mm hex wrench
- Straight edge

**CAUTION** Failure to use proper table insert with corresponding spindle/drum may result in personal injury and/or damage to workpiece.

Table inserts are identified by a number on the underside of each insert. Table insert openings are round or oblong. See Table 1 for correct usage of each insert.

Drum Dia.	Angle	INSERT PLATE						
		6	5	4	3	2	1	
1/4"	0°	✓	✓	✓	✓	✓	✓	✓
	45°	✗	✓	✓	✓	✓	✓	✓
3/8"	0°	✓	✓	✓	✓	✓	✓	✓
	45°	✗	✓	✓	✓	✓	✓	✓
1/2"	0°	✓	✓	✓	✓	✓	✓	✓
	45°	✗	✓	✓	✓	✓	✓	✓
5/8"	0°	✓	✓	✓	✓	✓	✓	✓
	45°	✗	✓	✓	✓	✓	✓	✓
3/4"	0°	✗	✓	✓	✓	✓	✓	✓
	45°	✗	✓	✓	✓	✓	✓	✓
1"	0°	✗	✓	✓	✓	✓	✓	✓
	45°	✗	✗	✓	✓	✓	✓	✓
1-1/2"	0°	✗	✗	✓	✓	✓	✓	✓
	45°	✗	✗	✓	✓	✓	✓	✓
2"	0°	✗	✗	✓	✓	✓	✓	✓
	45°	✗	✗	✗	✓	✓	✓	✓
3"	0°	✗	✗	✗	✓	✓	✓	✓
	45°	✗	✗	✗	✗	✓	✓	✓
4"	0°	✗	✗	✗	✗	✓	✓	✓
	45°	✗	✗	✗	✗	✗	✓	✓

Table 1: Insert Plate Usage Chart

1. Position insert into table, so that the plate notch is captured by the pin (A, Figure 6-7).
2. Place a straight edge over insert and table (see Figure 6-7). If gaps appear between straight edge and insert, or if the insert is higher than the table, the insert plate height must be adjusted.
3. Remove the insert and using the provided 2.5mm hex wrench, raise or lower the three adjustment screws. Reposition straight edge at right angles to check level in both directions.

Note: Leveling one insert is sufficient as all inserts are same thickness.

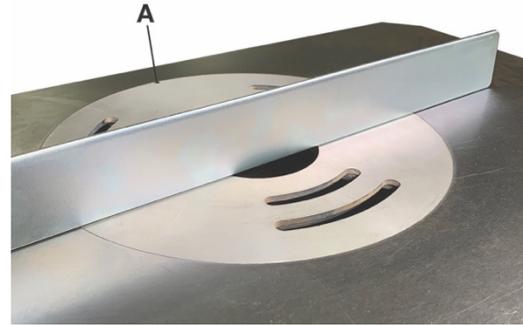


Figure 6-7: Leveling Table Insert

## 6.8 Combination Wrench Storage

The provided combination wrench can be stored inside the cabinet as shown in Figure 6-8.



Figure 6-8: Combination Wrench Storage

## 6.9 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. The collector should have a capacity sufficient for this size machine. A minimum 300 CFM dust collector is recommended.

Powermatic has a full line of dust collection systems available. See your dealer or visit our website at [www.powermatic.com](http://www.powermatic.com).

Connect the hose of your dust collection system to the 4-inch dust port at side of sander (see Figure 6-9). Secure hose tightly with a hose clamp.



Figure 6-9

## 7.0 Electrical Connections

**⚠WARNING** 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 switch is in *off* position and the safety key is removed (see Section 9.3).

It is recommended that the OSS10 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.**

### 7.1 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.

**⚠WARNING** Check with a qualified 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.

### 115V Operation

This model is intended for use on a 115V circuit and has a grounded outlet that matches the machine's electrical cord plug, as shown in Figure 7-1.

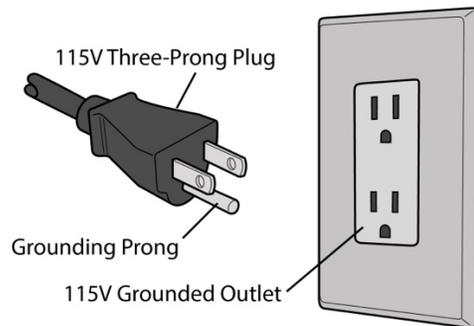


Figure 7-1: 115V Connection

If the outlet is not a properly grounded three-pole receptacle, do not use a temporary adaptor. Have a properly grounded three-pole receptacle installed by a qualified electrician.

### 7.2 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 2 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 Rating		Volts	Total length of cord in feet			
More Than	Not More Than	120	25	50	100	150
		240	50	100	200	300
		AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

Table 2

## 8.0 Adjustments

**⚠WARNING** Remove the safety key (A, Figure 8-1) from the power switch to guard against accidental startup while making adjustments. For safety key information, see Section 9.4, Figure 9-3.

### 8.1 Sanding Drum Tilt for Bevel Sanding

Refer to Figures 8-1 and 8-4.

1. Press power switch (B) on Spindle Angle Digital Readout on front panel of sander. The digital readout will light up when turned on.

#### For 0° Sanding (90° to table):

2. Turn knurled handwheel lock knob (C) counterclockwise to loosen.
3. Rotate angle adjusting handwheel (D) clockwise until it stops and the digital readout is at "0.0".
4. Turn handwheel lock knob (C) clockwise to retighten.

#### For Angles between 0° and 45°:

5. Turn knurled handwheel lock knob (C) counterclockwise to loosen.
6. Rotate angle adjusting handwheel (D) until the digital readout is at the desired angle.
7. Turn handwheel lock knob (C) clockwise to retighten.

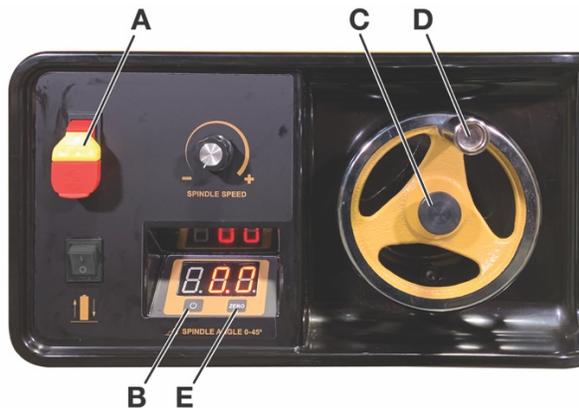


Figure 8-1: Control Panel

### 8.2 Adjusting Sanding Drum Tilt Stops

The sanding drum tilt stops for 0° (90° to table) and 45° 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 (G and J) are located on the trunnion(K) (see Figure 8-3).

### 8.2.1 Checking and Adjusting 0° (90° to table) and 45° Stops

Tools required:

- Machinist square
- Adjustable wrench

Refer to Figures 8-1 through 8-4.

1. Make sure table insert has been leveled with table (see Section 6.7).
2. Press power switch (B) on Spindle Angle Digital Readout on front panel of sander. The digital readout will light up when turned on.
3. Place 90° square on table and against front of drum or spindle (Figure 8-2).
4. Loosen knurled handwheel lock knob (C) Rotate angle adjusting handwheel (D) clockwise until it stops.
5. Check the square and sanding drum. The sanding drum should be at 90° to the table and the digital readout should be "0.0". If adjustment is needed, loosen nut (F) on 90° stop screw (G) and turn screw to proper height. Verify setting on square and sanding drum and retighten nut against the trunnion (K).
6. When a true 90° sanding drum angle to the table is achieved, press the "zero" button (E) on the digital readout to set it at "0.0".
7. Remove square from contacting drum or spindle and rotate angle adjusting handwheel (D) counterclockwise until it stops.
8. Place 45° square on table and against drum or spindle (see Figure 8-4).
9. Check the 45° square and sanding drum. The sanding drum should be at 45° to the table and the digital readout should be "45.0". If adjustment is needed, loosen nut (H) on 45° stop screw (J) and turn screw to proper height. Verify setting on square and sanding drum and retighten nut against the trunnion (K).

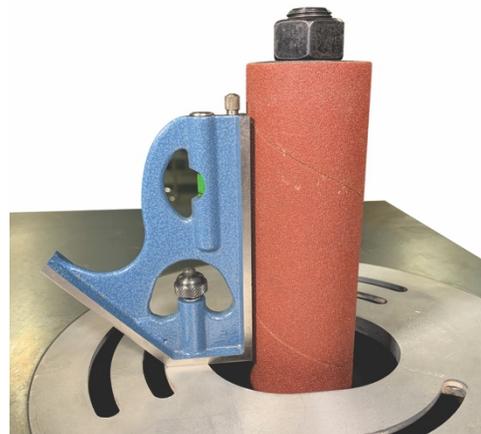


Figure 8-2: Square and Sanding Drum, 0° (90° to table)

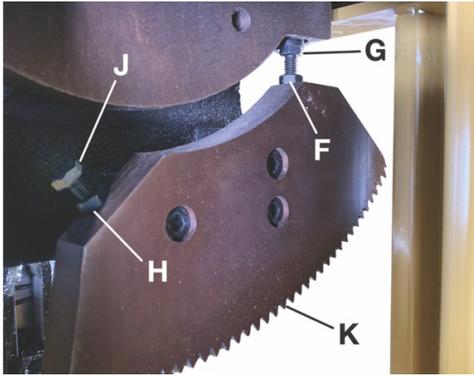


Figure 8-3: 90° and 45° Stop Screws

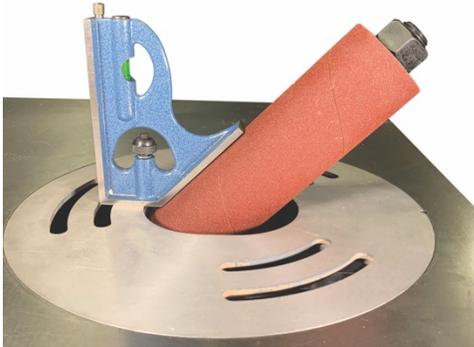


Figure 8-4: Square and Sanding Drum, 45°

## 9.0 Operation

### 9.1 Operating Guidelines

1. Select spindle that is slightly smaller than curve to be sanded.
2. Make sure spindle is properly secured on main shaft.
3. Use table insert that has smallest opening possible without contacting sanding sleeve.
4. Set sanding drum at the desired angle (see Section 8.1).
5. Turn sander power switch to ON and adjust the spindle speed to desired setting. Allow it to reach full speed before starting work.
6. If desired, turn oscillator power switch to ON.
7. Hold workpiece firmly and against table at all times.
8. For best results, feed workpiece against direction of spindle rotation.
9. When sanding drum is at 0° (90° to table), workpiece may approach sanding sleeve from any part of table. When sanding drum is tilted, use table area in front of sanding drum.
10. Sanding sleeve life may be prolonged by reversing it on the spindle to make use of opposite end.

**CAUTION** Keep fingers clear of sanding drum and table insert hole during operation.

### 9.2 Power Switch and Spindle Speed

Refer to Figure 9-1.

To start sander, pull red power switch out from bottom.

Adjust spindle speed using the spindle speed knob. Turn knob clockwise to increase speed. Turn knob counterclockwise to decrease speed.

To stop sander, push red power switch in at bottom.



Figure 9-1

**WARNING** If power to the sander is interrupted, the machine will restart immediately once power is restored, unless the red power switch button has been pushed to OFF position.

### 9.3 Spindle Oscillating Switch

Refer to Figure 9-2.

Turn oscillating power switch to ON (I) position to start oscillating feature.

To stop spindle oscillation, turn switch to OFF (O) position.



Figure 9-2: Oscillator Power Switch

## 9.4 Safety Key

Refer to Figure 9-3.

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

With sander power switch in the OFF position, pull safety key outward and remove it from switch. Store in a safe place. The key must be re-inserted before sander can be turned on.



Figure 9-3: Safety Key

## 10.0 Maintenance

**⚠WARNING** Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

### 10.1 General Maintenance

Clean the sander after each use. Vacuum any residual dust inside the cabinet and around spindle area.

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

All bearings are permanently lubricated and sealed and no further lubrication required.

## 10.2 Lubrication

There are only two places that need lubrication: the quill housing and the trunnion teeth.

Use good quality lubricating grease.

Attach grease gun to grease zerk on quill housing to add grease to quill housing (see Figure 10-1).

Periodically apply grease to the trunnion teeth for smooth operation of the spindle angle worm gear mechanism (see Figure 10-2).



Figure 10-1



Figure 10-2

## 11.0 Troubleshooting OSS10 Spindle Sander

Symptom	Possible Cause	Correction
Sander will not start.	Sander unplugged from wall or motor.	Check all plug connections.
	Fuse blown, or circuit breaker tripped in service panel.	Replace fuse or reset circuit breaker.
	Cord damaged.	Replace cord.
Sanding drum does not come up to speed.	Extension cord too light or too long.	Replace with adequate size and length cord.
	Low current.	Contact a qualified electrician.
Machine vibrates excessively.	Base on uneven surface.	Adjust base so that it rests evenly on the floor.
	Bearings worn.	Replace bearings.
Sanded edge not square.	Table not square to sanding drum.	Use a square to adjust table to sanding drum. See <i>Section 8.2</i> .
Sanding marks on wood.	Wrong grit sanding sleeve.	Use coarser grit for stock removal and fine grit for finish sanding.
	Feed pressure too great.	Do not force workpiece against spindle or drum.

Table 3

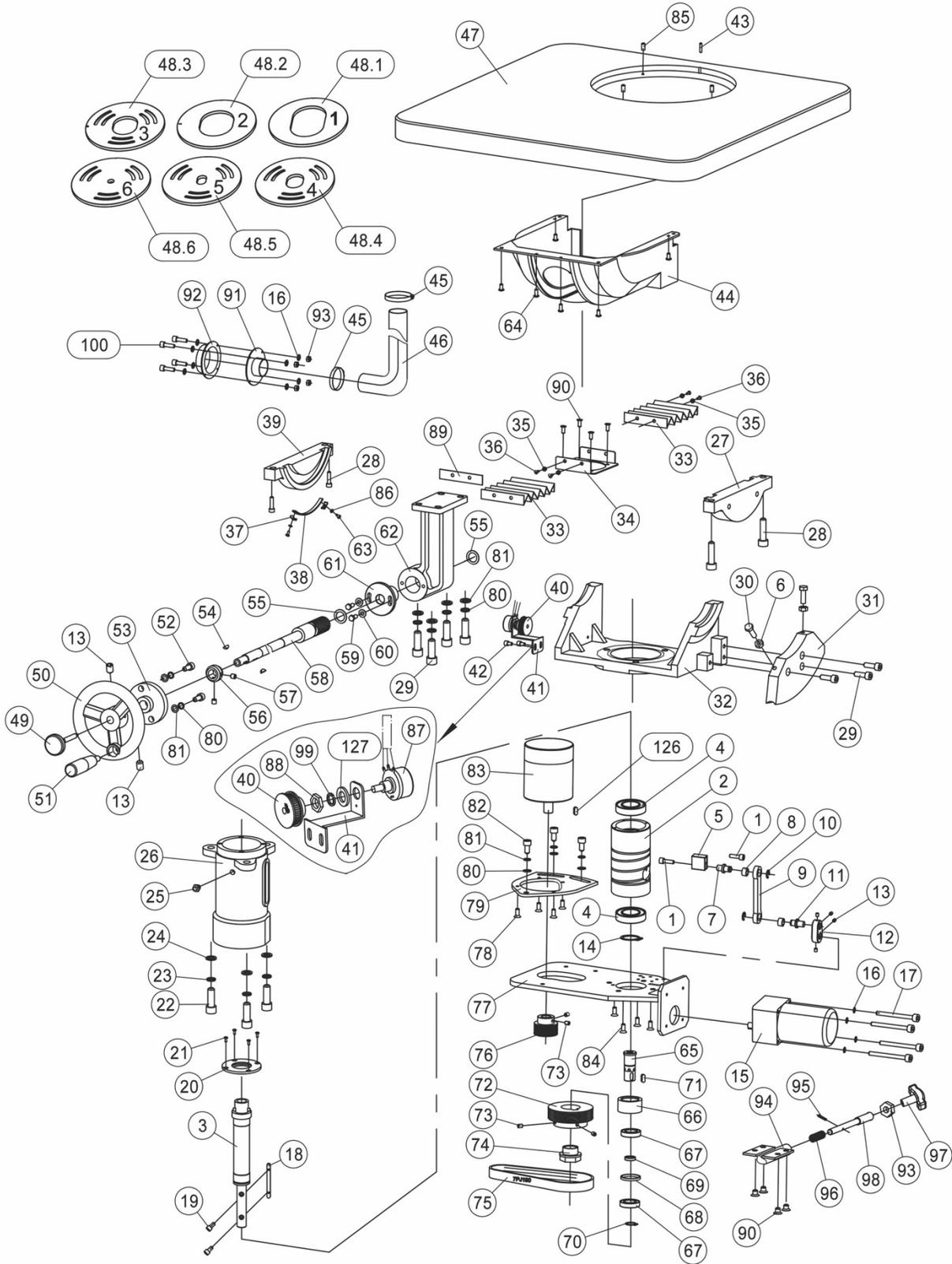
## 12.0 Replacement Parts

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.

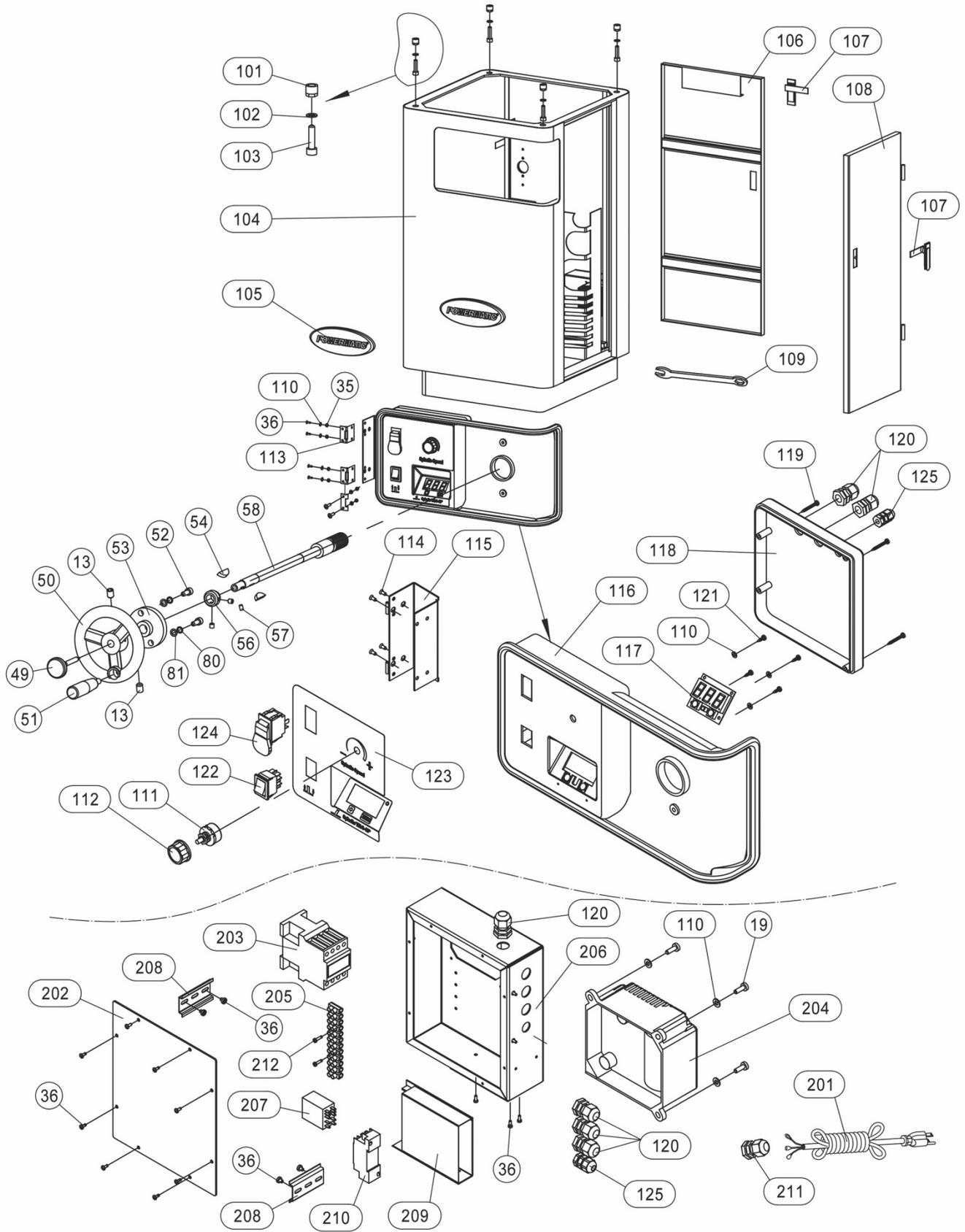
Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Powermatic.

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

12.1.1 OSS10 Oscillating Spindle Sander – Exploded View



# OSS10 Oscillating Spindle Sander – Exploded View



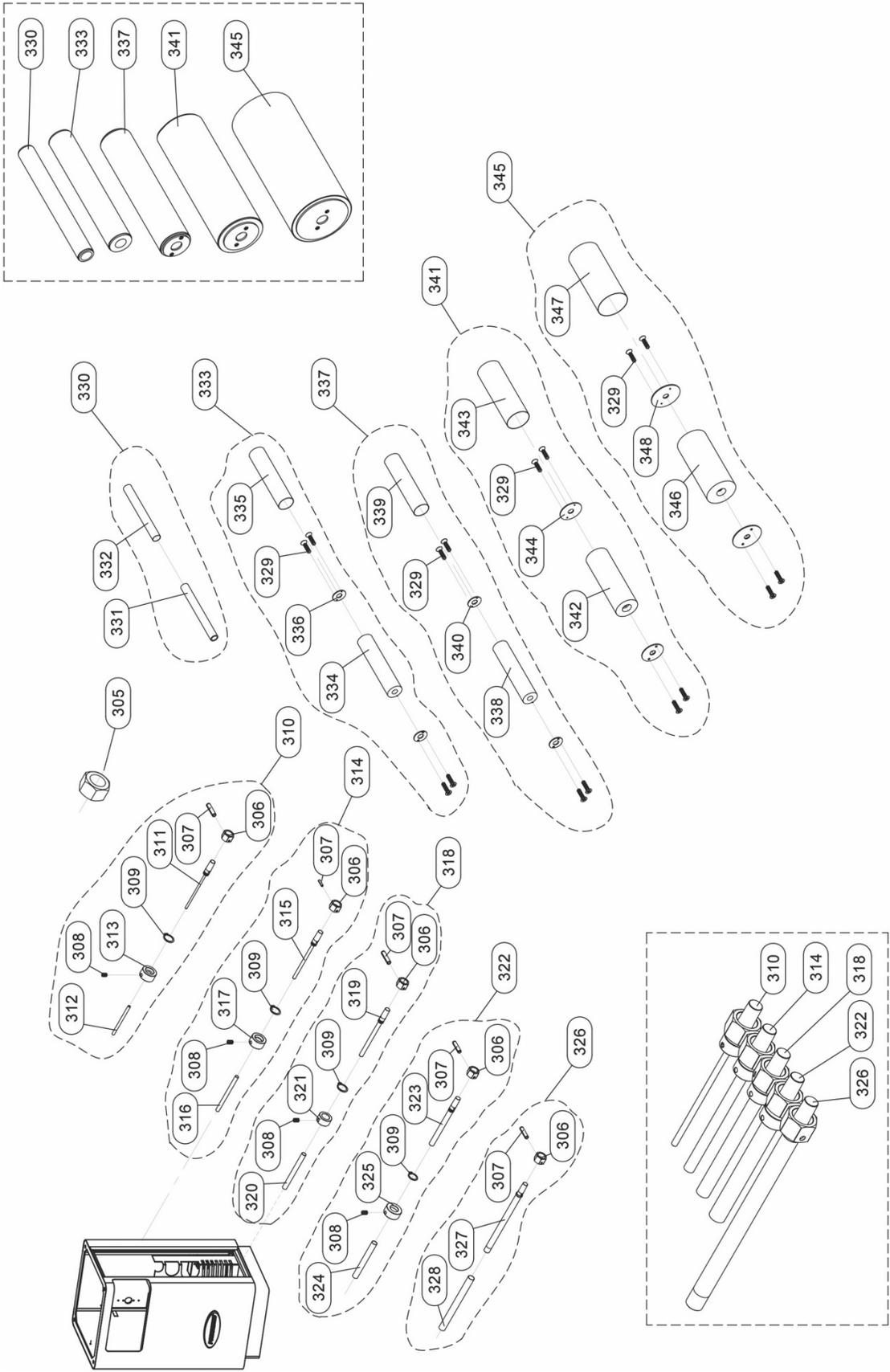
## 12.1.2 OSS10 Oscillating Spindle Sander – Parts List

Index No	Part No	Description	Size	Qty
1	TS-1503051	Socket Head Cap Screw	M6x20	2
2	OSS10-02	Quill		1
3	OSS10-03	Spindle		1
	OSS10-03A	Spindle Assembly (#2~4, #14, #18~21, #65-71)		1
4	BB-6006	Ball Bearing	6006-2RZ	2
5	OSS10-05	Lifting Block		1
6	TS-1540061	Hex Nut	M8	2
7	OSS10-07	Arm Shaft		1
8	OSS10-08	Oil Bearing		2
9	OSS10-09	Connecting Rod		1
	OSS10-09A	Connecting Rod Assembly (#1, #5, #7~13)		1
10	OSS10-10	C-Ring	10	2
11	OSS10-11	Cam shaft		1
12	OSS10-12	Connecting Cam		1
13	TS-1523031	Socket Set Screw	M6x10	6
14	OSS10-14	C-Ring	30	1
15	OSS10-15	Oscillating Motor	DC24V 30W	1
	OSS10-15A	Oscillating Motor Assembly (#15~17)		1
16	TS-1550031	Flat Washer	5 mm	10
17	TS-2285502	Pan Head Machine Screw	M5x55	4
18	OSS10-18	Key		1
19	TS-2283102	Pan Head Machine Screw	M4x12	6
20	OSS10-20	Plate		1
21	TS-1532032	Flat Head Machine Screw	M4x10	4
22	TS-1506041	Socket Head Flat Screw	M12x35	3
23	TS-2361121	Lock Washer	12mm	3
24	TS-2360121	Flat Washer	12mm	3
25	OSS10-25	Oil cap	M8x1	1
26	OSS10-26	Quill Housing		1
	OSS10-26A	Quill Housing Assembly (#25, #26, #84)		1
27	OSS10-27	Right Table Trunnion (#27, #28)		1
28	TS-1505061	Socket Head Cap Screw	M10x40	4
29	TS-1504051	Socket Head Cap Screw	M8x25	7
30	TS-1490041	Hex Cap Screw	M8x25	2
31	OSS10-31	Fan-Shaped Worm wheel		1
	OSS10-31A	Fan-Shaped Worm wheel Assembly (#6, #29~31)		1
32	OSS10-32	Rotating bracket		1
33	OSS10-33	Rubber Shield		2
	OSS10-33A	Rubber Shield Set (#33, #35, #36, #64)		2
34	OSS10-34	Dust shield seat		1
35	TS-1540021	Hex Nut	M4	12
36	TS-1532032	Pan Head Machine Screw	M4x10	28
37	OSS10-37	Pressing Plate		2
38	OSS10-38	Counting Belt		1
39	OSS10-39	Left Table Trunnion		1
	OSS10-39A	Left Table Trunnion Assembly (#28, #37~39, #63, #86)		1
40	OSS10-40	Counting Potentiometer		1
41	OSS10-41	Counting Potentiometer Base		1
42	TS-1502011	Socket Head Cap Screw	M5x8	2
43	OSS10-43	Pin	4x20	1
44	OSS10-44	Collector Hood (#44, #64)		1
45	OSS10-45	Clamp		2
46	OSS10-46	Hose		1
47	OSS10-47	Table		1
	OSS10-47A	Table Assembly (#43, #47, #85)		1
48.1	OSS10-481	Table Insert #1 (only for 4" Rubber Drum at 45°)		1
48.2	OSS10-482	Table Insert #2 (for 3" & 4" Rubber Drum)		1
48.3	OSS10-483	Table Insert #3 (for 1-1/2", 2", 3" Rubber Drum)		1
48.4	OSS10-484	Table Insert #4 (for 1", 1-1/2", 2" Rubber Drum)		1
48.5	OSS10-485	Table Insert #5 (for 1/4" ~ 1" Rubber Drum)		1

Index No	Part No	Description	Size	Qty
48.6	OSS10-486	Table Insert #6 (for 1/4" ~5/8" Rubber Drum at 90°)		1
49	OSS10-49	Lock knob		1
50	OSS10-50	Handwheel		1
	OSS10-50A	Handwheel Assembly (#50, #51, #13)		1
51	OSS10-51	Handle		1
52	TS-1504041	Socket Head Cap Screw	M8x20	2
53	OSS10-53	Worm Seat		1
	OSS10-53A	Worm Seat Assembly (#52~53, #80, #81)		1
54	OSS10-54	Key		2
55	OSS10-55	Push Washer	30x17x0.8	2
56	OSS10-56	Retaining Hoop (#56, #57)		1
57	TS-1524011	Socket Set Screw	M8x8	2
58	OSS10-58	Worm Shaft		1
59	TS-1482021	Hex Cap Screw	M6x12	2
60	TS-1550041	Flat Washer	6 mm	2
61	OSS10-61	Positioning Seat		1
	OSS10-61A	Positioning Seat Assembly (#55, #59~61)		1
62	OSS10-62	Worm Bracket		1
	OSS10-62A	Worm Bracket Assembly (#29, #62, #80, #81)		1
63	TS-1531022	Phillips Round Head Screw	M3x8	2
64	TS-1533032	Pan Head Machine Screw	M5x10	6
65	OSS10-65	Spline Sleeve		1
66	OSS10-66	Sleeve		1
67	BB-6007	Ball Bearing	6007-2RZ	2
68	OSS10-68	Sleeve		1
69	OSS10-69	Small Sleeve		1
70	OSS10-70	C-Ring	35	1
71	OSS10-71	Key	10x25	1
72	OSS10-72	Spindle Pulley (#72, #73)		1
73	TS-2276081	Socket Set Screw	M6x8	4
74	OSS10-74	End Cap		1
75	OSS10-75	Belt	7PJ190	1
76	OSS10-76	Motor Pulley (#73, #76)		1
77	OSS10-77	Motor Bracket		1
78	TS-1514021	Socket Head Flat Screw	M6x16	4
79	OSS10-79	Motor Plate		1
80	TS-1550061	Flat Washer	8mm	9
81	TS-2361081	Lock Washer	8mm	9
82	TS-1504031	Socket Head Cap Screw	M8x16	3
83	OSS10-83	BLDC Motor (#78, #80~83)	0.75kW	1
84	TS-1515021	Socket Head Flat Screw	M8x20	4
85	TS-1521021	Socket Set Screw	M4x6	3
86	TS-1550011	Flat Washer	3mm	2
87	OSS10-087	Potentiometer		1
	OSS10-087A	Potentiometer Assembly (#40~42; #87, #88, #99, #127)		1
88	OSS10-088	Hex Nut	M10x1	1
89	OSS10-089	Plate		1
90	TS-1534041	Flat Head Machine Screw	M5x10	8
91	OSS10-91	Tie-in B		1
	OSS10-91A	Tie In Set (Text) (#16, #91~93, #100)		1
92	OSS10-92	Tie-in A		1
93	TS-1541021	Hex Nut	M5	5
94	OSS10-94	Pin axle seat		1
95	OSS10-95	Pin	2x14	1
96	OSS10-96	Spring		1
97	OSS10-97	Knob		1
98	OSS10-98	Shaft		1
	OSS10-98A	Lock Shaft Assembly (#90, #93~98)		1
99	TS-2361101	Lock Washer	10 mm	1
100	TS-1502041	Socket Head Cap Screw	M5x16	4
101	OSS10-101	Adjusting Screw for Table		4
102	TS-1550061	Flat Washer	8 mm	4

Index No	Part No	Description	Size	Qty
103	TS-1504071	Socket Head Cap Screw	M8x35	4
104	OSS10-104	Stand		1
105	OSS10-105	POWERMATIC LOGO		1
106	OSS10-106	Cabinet Door		1
107	OSS10-107	Door Latch		2
108	OSS10-108	Cabinet Door		1
109	OSS10-109	Wrench		1
110	TS-1550021	Flat Washer	4mm	26
111	OSS10-111	Speed Controller (#111, #112)		1
112	OSS10-112	Speed Adjust Knob		1
113	OSS10-113	Hinge		2
114	OSS10-114	Pan Head Self-Taping Screw	ST3.5X12	4
115	OSS10-115	Mounting Bracket (Electrical Panel)		1
116	OSS10-116	Switch Box		1
	OSS10-116A	Switch Box Assembly (#114, #116, #123)		1
117	OSS10-117	Angle indicator (#110, #117, #121)		1
118	OSS10-118	Electrical Back Cover (#118, #119)		1
119	OSS10-119	Pan Head Self-Taping Screw	ST3.5X30	4
120	OSS10-120	Strain Relief	M16	6
121	OSS10-121	Pan Head Self-Taping Screw	ST3.5X10	4
122	OSS10-122	Oscillation switch	HY12-9	1
123	OSS10-123	Switch Plate Label		1
124	OSS10-124	ON/OFF Switch	HY18	1
125	OSS10-125	Strain Relief	M14	2
126	OSS10-126	Key	5X20	1
127	TS-1550071	Flat Washer	10 mm	1
201	OSS10-201	Power Cord	16AWG x 3C	1
202	OSS10-202	Electrical Box Cover		1
203	OSS10-203	Contactora	CJX21210	1
204	OSS10-204	Controller	070130016A	1
205	OSS10-205	Terminal Block		1
206	OSS10-206	Electrical Box		1
207	OSS10-207	Sensitive Relay	HH52P	1
208	OSS10-208	Mounting Bracket, Electrical Componets		2
209	OSS10-209	Switching Power Supply	LRS-100-24.PNG	1
210	OSS10-210	Mounting Seat, Sensitive Relay		1
211	OSS10-211	Strain Relief	M20	1
212	OSS10-212	Pan Head Machine Screw	M3x12	2
		ID Label, OSS10 (not shown)	99x42mm	1
		Warning Label, OSS10 (not shown)	135x105mm	1
		Arrow Warning Label, OSS10 (not shown)	40x30mm	1
		Oil sticker Warning Label, OSS10 (not shown)	30x30mm	1
	JET750-55	Hex wrench (not shown)	2.5mm	1
	TS-152704	Hex Wrench (not shown)	3mm	1
	TS-152705	Hex Wrench (not shown)	4mm	1
	TS-152706	Hex Wrench (not shown)	5mm	1
	TS-152707	Hex Wrench (not shown)	6mm	1
	OSS10-83L	BLDC Motor Label, OSS10 (not shown)		1
	OSS10-15L	DC Motor Label, OSS10 (not shown)		1

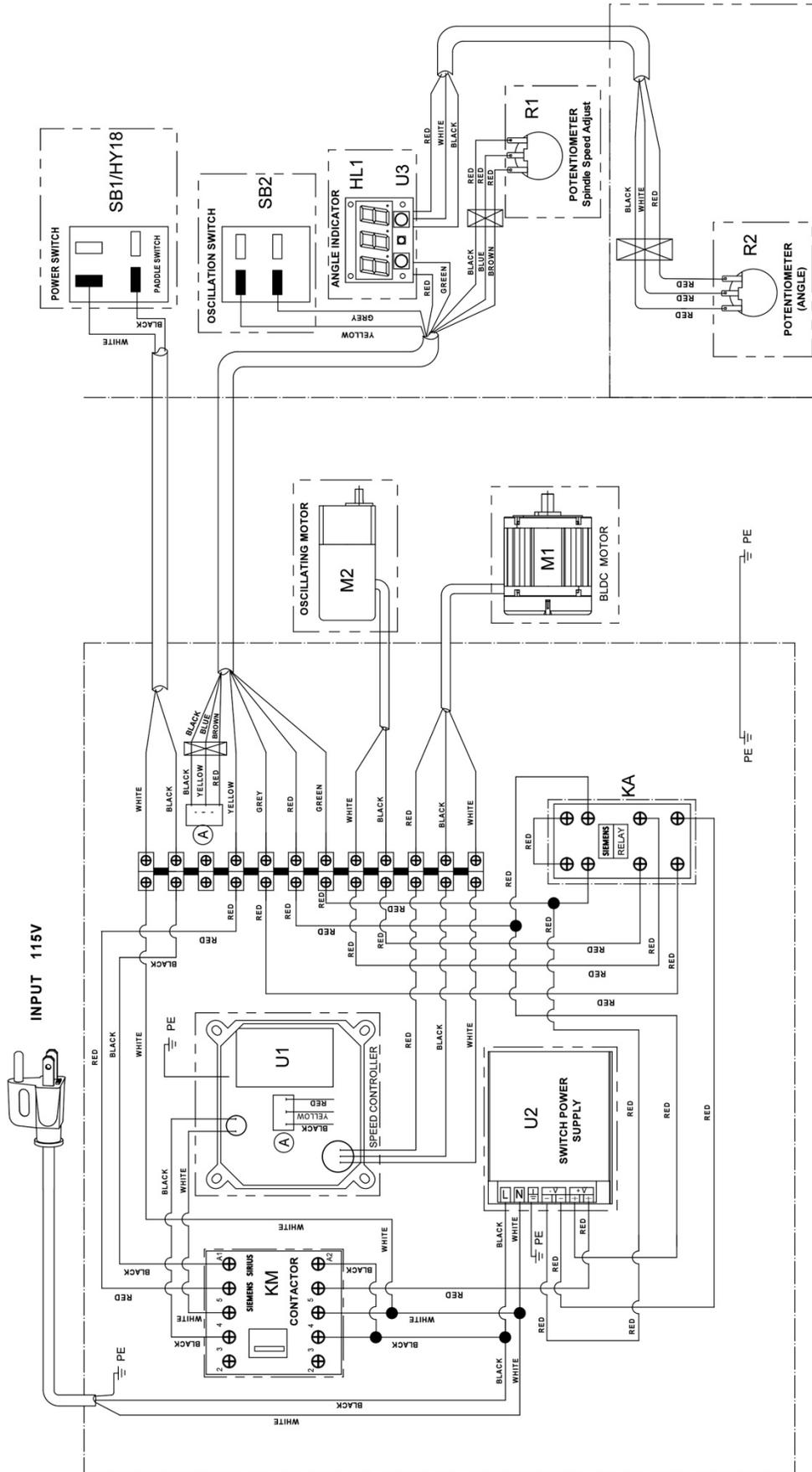
### 12.2.1 OSS10 Spindle and Drum Assembly– Exploded View



## 12.2.2 OSS10 Spindle and Drum Assembly– Parts List

Index No.	Part No.	Description	Size	Qty
305	TS-0571082	Hex Nut	3/4"-16UNF	1
306	OSS10-306	Special Nut		5
307	OSS10-307	Pin	5x25	5
308	TS-2276081	Socket Set Screw	M6x8	4
309	OSS10-309	Retaining Ring	C-17	4
310	OSS10-310	Spindle Assembly (#306~309, #311~313)	1/4"	1
311	OSS10-311	Spindle	1/4"	1
312	OSS10-312	Sanding Sleeve (100 Grit)	1/4" x 5"	1
313	OSS10-313	Collar (for 1/4" Spindle Assembly)		1
314	OSS10-314	Spindle Assembly (#306~309, #315~317)	3/8"	1
315	OSS10-315	Spindle	3/8"	1
316	OSS10-316	Sanding Sleeve (100 Grit)	3/8" x 6"	1
317	OSS10-317	Collar (for 3/8" Spindle Assembly)		1
318	OSS10-318	Spindle Assembly (#306~309, #319~321)	1/2"	1
319	OSS10-319	Spindle	1/2"	1
320	OSS10-320	Sanding Sleeve (100 Grit)	1/2" x 6"	1
321	OSS10-321	Collar (for 1/2" Spindle Assembly)		1
322	OSS10-322	Spindle Assembly (#306~309, #323~325)	5/8"	1
323	OSS10-323	Spindle	5/8"	1
324	OSS10-324	Sanding Sleeve (100 Grit)	5/8" x 6"	1
325	OSS10-325	Collar (for 5/8" Spindle Assembly)		1
326	OSS10-326	Spindle Assembly (#306, #307, #327, #328)	3/4"	1
327	OSS10-327	Spindle	3/4"	1
328	OSS10-328	Sanding Sleeve (100 Grit)	3/4" x 9"	1
329	OSS10-329	Self Tapping Screw	M3x12	16
330	OSS10-330	Drum Assembly (incl. #331 & #332)	1"	1
331	OSS10-331	Rubber Drum	1"	1
332	OSS10-332	Sanding Sleeve (100 Grit)	1" x 9"	1
333	OSS10-333	Drum Assembly (#329, #334~336)	1-1/2"	1
334	OSS10-334	Rubber Drum	1-1/2"	1
335	OSS10-335	Sanding Sleeve (100 Grit)	1-1/2" x 9"	1
336	OSS10-336	Washer	1-1/2"	2
337	OSS10-337	Drum Assembly (#329, #338~340)	2"	1
338	OSS10-338	Rubber Drum	2"	1
339	OSS10-339	Sanding Sleeve (100 Grit)	2" x 9"	1
340	OSS10-340	Washer	2"	2
341	OSS10-341	Drum Assembly (#329, #342~344)	3"	1
342	OSS10-342	Rubber Drum	3"	1
343	OSS10-343	Sanding Sleeve (100 Grit)	3" x 9"	1
344	OSS10-344	Washer	3"	2
345	OSS10-345	Drum Assembly (#329, #346~348)	4"	1
346	OSS10-346	Rubber Drum	4"	1
347	OSS10-347	Sanding Sleeve (100 Grit)	4" x 9"	1
348	OSS10-348	Washer	4"	2

# 13.0 Electrical Connections





427 New Sanford Road  
LaVergne, Tennessee 37086  
Phone: 800-274-6848  
[www.powermatic.com](http://www.powermatic.com)