POWERMATIC®

Operating Instructions and Parts Manual

Drum Sander

Model PM2244

For serial no. 2011222442682 and higher.

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1.0 IMPORTANT SAFETY INSTRUCTIONS

WARNING – To reduce risk of injury:

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 warning labels if they become obscured or removed.
4. This drum 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 drum sander, do not use until proper training and knowledge have been obtained.
5. Do not use this drum 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 ANSI Z87.1 approved safety glasses or face shield while using this drum sander. (Everyday eyeglasses only have impact resistant lenses; they are *not* safety glasses.)
7. Before operating this machine, 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. Kickback occurs when the workpiece is thrown towards the operator at a high rate of speed. If you do not have a clear understanding of kickback and how it occurs, DO NOT operate this drum sander.
9. Wear hearing protection (plugs or muffs) during extended periods of operation.
10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
11. Make certain the switch is in the OFF position before connecting the machine to the power supply.
12. Make certain the machine is properly grounded.
13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
14. 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.
15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately after completion of maintenance.
16. 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.
17. Provide for adequate space surrounding work area and non-glare, overhead lighting.
18. Keep the floor around the machine clean and free of scrap material, oil and grease.
19. Keep visitors a safe distance from the work area. Keep children away.
20. Make your workshop child proof with padlocks, master switches or by removing starter keys.
21. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
22. Maintain a balanced stance at all times so that you do not fall onto moving parts. Do not overreach or use excessive force to perform any machine operation.
23. 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.
24. Use recommended accessories; improper accessories may be hazardous.
25. Maintain tools with care. Keep conveyor and abrasives clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
26. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use bare 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. Stand out of the path of workpiece when feeding a board.
31. Always feed stock against the rotation of drum.
32. Keep hands clear when feeding parts onto the conveyor. The part will be forced down as it begins to feed, causing a pinching action between the part and the conveyor bed. Never reach into a running machine. Turn off sander, allow it to come to a complete stop, and disconnect from power, before attempting to retrieve parts from beneath the drum.
33. Pay particular attention to instructions on reducing risk of kickback.
34. Don't use in dangerous environment. Don't use power tools in damp or wet location, or expose them to rain. Keep work area well lighted.
35. Tighten the caster lock knobs before operating the sander.

⚠ **WARNING:** This product can expose you to chemicals including lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to http://www.p65warnings.ca.gov.

⚠ **WARNING:** Drilling, sawing, sanding or machining wood products generates wood dust and other substances known to the State of California to cause cancer. Avoid inhaling dust generated from wood products or use a dust mask or other safeguards for personal protection.

Wood products emit chemicals known to the State of California to cause birth defects or other reproductive harm. For more information go to http://www.p65warnings.ca.gov/wood.

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 injury or possibly even death.

SAVE THESE INSTRUCTIONS

2.0 About this manual

This manual is provided by Powermatic covering the safe operation and maintenance procedures for a Powermatic Model PM2244 Drum 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 document.

This manual is not intended to be an exhaustive guide to sanding methods, choice of stock, selection of abrasives, etc. Additional knowledge may be obtained from experienced users or trade articles. Whatever accepted methods are used, always make personal safety a priority.

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.

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

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4.0 **Specifications**

Model number	PM2244
Stock number	1792244
Motor and electricals:	
Drum motor:	
Motor type	totally enclosed fan cooled, induction, capacitor start
Horsepower	1-3/4 HP
Phase	single
Voltage	115V only
Cycle	60Hz
Listed FLA (full load amps)	14 A
Motor speed	1720 RPM
Starting amps	54 A
Running amps (no load)	6.2 A
Start capacitor	300MFD 125VAC
Run capacitor	50μF 300VAC
Conveyor motor:	
Motor type	totally enclosed DC
Horsepower	1/30 HP
Phase	single
Voltage	100V DC
Listed FLA (full load amps)	0.45 A
Motor speed	40 RPM
On/off switch	magnetic, with safety key
Power cord	12AWG x 3C, 6 ft. (1830 mm)
Power plug installed	125V 15A
Recommended circuit and fuse/breaker size [1]	20A
Sound emission [2]	72 dB at 100cm; 74 dB at 50cm
Capacities:	
Maximum board width	single pass – 22 in. (559 mm); two passes – 44 in. (1188 mm)
Maximum board thickness	4 in. (102 mm)
Minimum board length	2-3/8 in. (60 mm)
Minimum board thickness	1/32 in. (0.8 mm)
Materials:	
Main body	cast iron and steel
Enclosed cabinet	steel
Drum	extruded aluminum
Extension tables	steel
Conveyor bed	cast iron
Handwheel	cast iron
Sanding drum:	
Drum dimensions	dia. 5 in. x 22L (127 x 559 mm)
Drum speed	1720 RPM
Sanding paper installed	80 grit
Drum elevation per one rotation of handwheel	2.12 mm
Conveyor:	
Conveyor speed	infinitely variable within 0 to 10 FPM (0-3 MPM)
Conveyor bed dimensions	23-1/4 x 15-5/32 in. (590 x 385 mm)
Conveyor height from floor	30-11/16 in. (780 mm)
Dust collection:	
Dust port outside diameter	4” (100mm)
Minimum extraction volume required	800 CFM (23 CMM)
Dimensions:	
Overall dimensions of shipping crate	45-5/8 x 23 x 50-1/4in. (1160x585x1277mm)
Overall dimensions, fully assembled (LxWxH)	42-1/4 x 37-11/16 x 49-1/2 in. (1073 x 957 x 1257 mm)
Weights:	
Net weight	328 lb. (149 kg)
Shipping weight	418 lb. (190 kg)

[1] Subject to local/national electrical codes. [2] The specified values are emission levels and are not necessarily to be seen as safe operating levels. As workplace conditions vary, this information is intended to allow the user to make a better estimation of the hazards and risks involved only.

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.

5.0 Setup and assembly

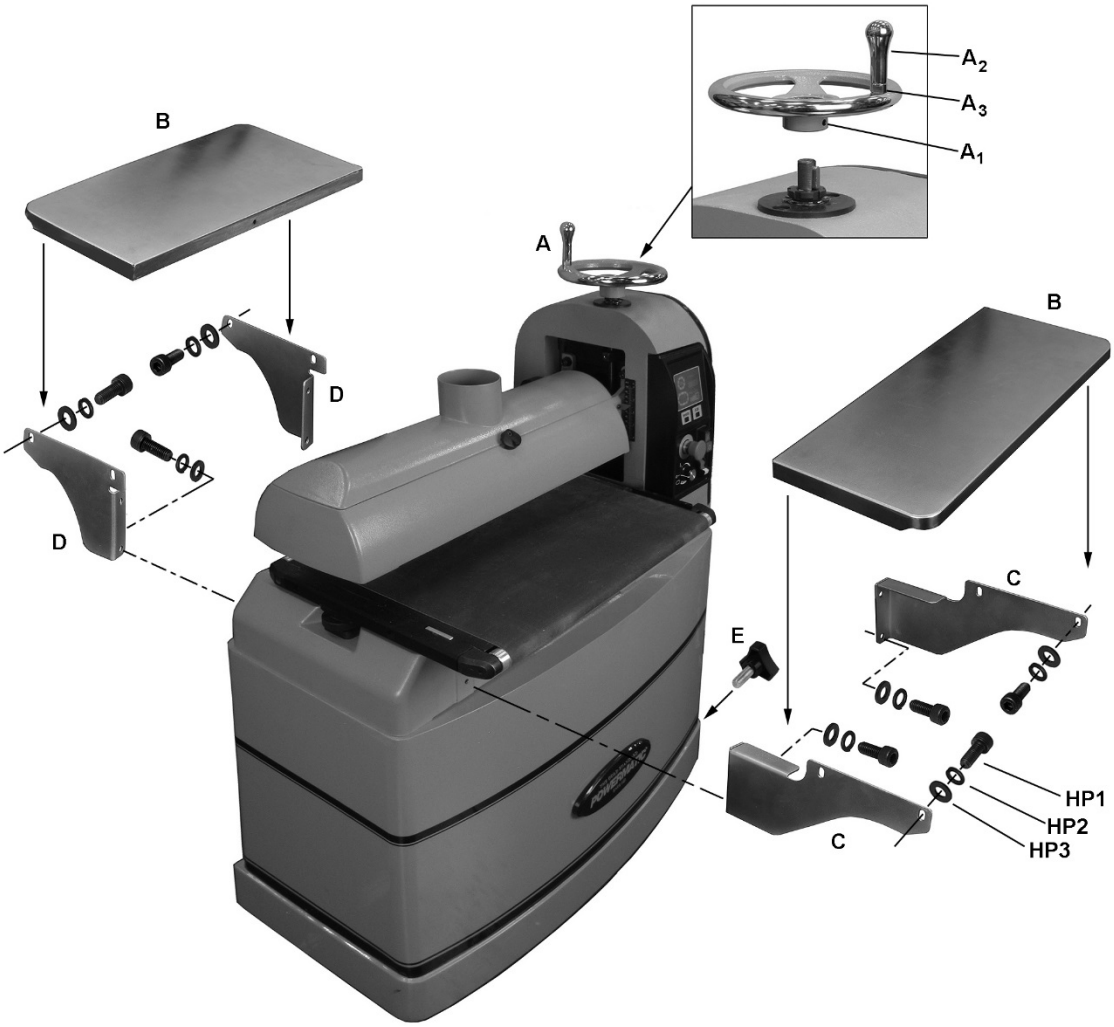


Figure 2

5.1 Shipping contents

See Figure 2.

1 Sander unit
1 Handwheel with handle – A
2 Extension tables – B
2 Infeed table brackets (L and R) – C
2 Outfeed table brackets (L and R) – D
2 Caster lock knobs – E
16 Socket hd. cap screws M8x20 - HP1
16 Lock washers M8 - HP2
16 Flat washers M8 - HP3

⚠WARNING Read and understand all assembly instructions before attempting assembly. Sander must be disconnected from power during assembly procedures. Failure to comply may cause serious injury.

5.2 Tools required for assembly

Hex wrenches 4mm, 6mm

Open-end wrench 14mm

Straight edge (such as straight steel bar or carefully jointed board)

5.3 Unpacking and cleanup

1. Inspect all contents for shipping damage. Compare contents of shipping carton with the contents list in this manual. Report any damage or part shortages to your distributor.

⚠CAUTION Sander is heavy! Use an assistant to help remove from pallet.

2. Remove any screws or blocks holding sander to pallet. Carefully slide sander off pallet (NOTE: There are internal blocks on the pallet securing the sander – lift up on sander end to clear these while sliding off pallet.)

5.4 Handwheel

1. Back off set screw (A_1, Figure 2), and push handwheel (A, Figure 2) down onto shaft as far as it will go. Make sure set screw faces key on shaft. Tighten set screw with 4mm hex wrench.
2. Install handle (A_2) onto handwheel, and tighten using 14mm wrench on the flats (A_3).

Rotate handwheel clockwise to lower drum head; counterclockwise to raise.

5.5 Infeed and Outfeed Tables

1. Attach table brackets (C,D, Figure 2) to sander base with M8 screws and washers (HP1,HP2,HP3). Tighten screws with 6mm hex wrench.

   NOTE: Longer brackets (C) mount to infeed side, shorter brackets (D) to outfeed side. Each bracket has left and right version. See Figure 2 for proper orientation.
2. Place extension tables (B) onto table brackets (C) and insert screws and washers (HP1,HP2,HP3). Note: Leave screws loose for now.
3. Place a straight edge across conveyor bed and extension table. See Figure 3.
4. Position straight edge at two or three places across width of table, as you adjust extension table until it is slightly below surface of conveyor belt.
5. Tighten screws.
6. Repeat for opposite table.

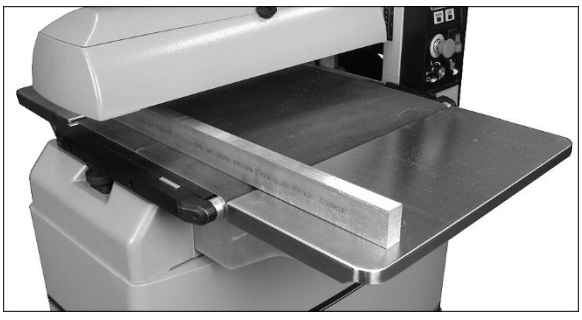


Figure 3

5.6 Caster lock knobs

Screw the caster lock knobs (E, Figure 2) into the threaded holes on the side of the cabinet.

⚠CAUTION Always tighten the caster lock knobs before operating the sander.

5.7 Dust Collection

Dust collection is mandatory for a safe work environment and extended abrasive life. The PM2244 is equipped with a 4-inch dust collection port. Secure a 4-inch dust collection hose to the port with a hose clamp (Figure 4), and connect to a high volume dust collector (minimum 800 CFM). *Note: Dryer vent hose is not acceptable for this purpose.*

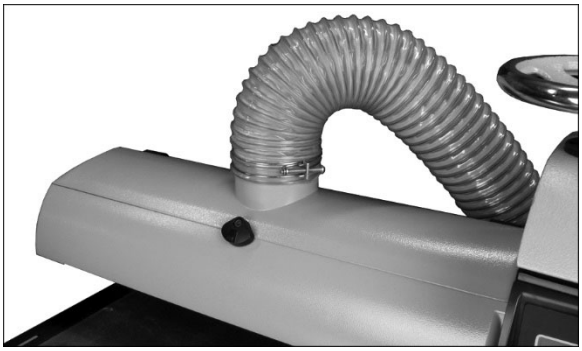


Figure 4 (hose and clamp not included)

5.8 Installing Abrasives

Proper attachment of the abrasive strip to the drum is critical to achieving top performance from your drum sander.

An 80-grit, 3-inch wide abrasive strip is pre-installed on the drum. Optional pre-cut abrasives of different grits are also available; see *sect. 10.0*.

(TIP: If you are using an after-market abrasive, use a new Powermatic-supplied abrasive as a template to quickly cut a new strip. Alternatively, a diagram is supplied in Figure 20 showing trim measurements.)

1. Press fastener lever (F, Figure 5) on outboard (left) end of drum, and insert tapered end of abrasive through slit in fastener, as shown. Align tapered edge of abrasive strip with left edge of drum. Insert enough strip so that the right edge aligns with the reference notch; this will ensure the proper length of strip to be secured at the opposite end of the drum.
2. Release fastener lever to secure end of strip.

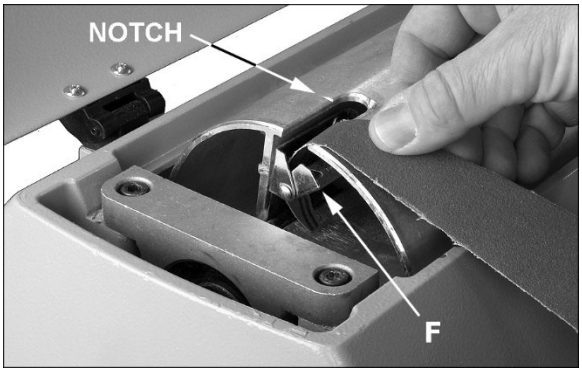


Figure 5

3. Begin wrapping abrasive around drum. The tapered edge of strip end should follow edge of drum.

4. Continue to wrap abrasive in spiral fashion by rotating drum with one hand and guiding strip with the other. See Figure 6.

   Successive windings of strip must *not have any overlap.* They should be flush with previous windings or with a slight gap between.

   The last winding should have a 1/16 to 1/8 in. gap, before insertion into inboard fastener (see Figure 7).

Figure 6

5. Press inboard take-up lever (G, Figure 7) and insert trailing end of strip as far as it will go. If necessary, trim tapered end of abrasive strip.

6. Release inboard take-up lever to secure strip.

All abrasive strips will stretch over time as they are used, and may stretch enough to allow the take-up lever to reach its lowest position so that it cannot maintain tension on the strip. If this occurs, follow the above procedures to reset the take-up lever.

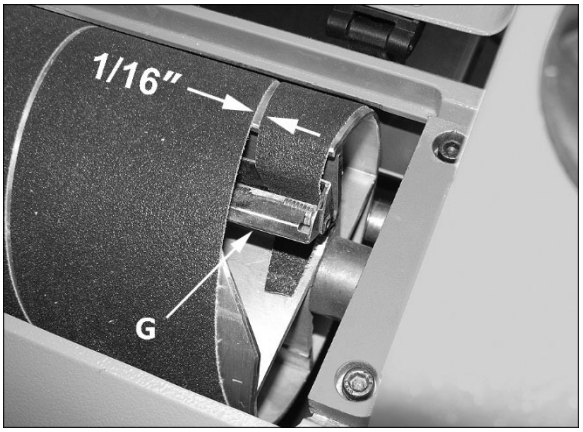


Figure 7

6.0 Electrical connections

⚠WARNING All electrical connections must be done by a qualified electrician in compliance with all local codes and ordinances. Failure to comply may result in serious injury.

The PM2244 Sander is rated at 115-volt power only. The sander comes with a plug designed for use on a circuit with a *grounded outlet* that looks like the one pictured in **A**, Figure 8.

Before connecting to power source, be sure switch is in *off* position.

It is recommended that the sander be connected to a dedicated 20 amp circuit with circuit breaker or fuse. If connected to a circuit protected by fuses, use time delay fuse marked “D”. **Local codes take precedence over recommendations.**

6.1 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 having an outer surface 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 personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Failure to comply may cause serious or fatal injury.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating **less than 150** volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **A,** Figure 8. An adapter, shown in B and C, may be used to connect this plug to a 2-pole receptacle as shown in B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. *This adapter is not permitted in Canada.* The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

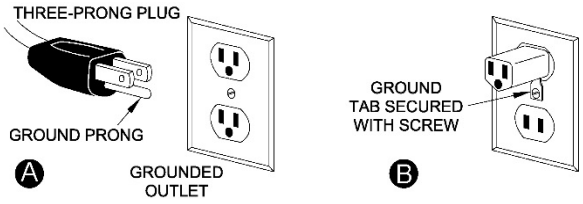


Figure 8

6.2 **Extension cords**

The use of extension cords is discouraged; try to position machines near the power source. If an extension cord is necessary, make sure it 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 shows correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Ampere Rating		Volts	Total length of cord in feet			
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
12	16		14	12	Not Recommended	

Table 1: Extension cord recommendations

7.0 **Adjustments**

⚠WARNING Disconnect sander from power source before making adjustments.

7.1 **Depth scale**

The depth scale indicates distance between bottom of sanding drum and top of conveyor belt. Adjustment is performed by “zeroing” the scale.

1. With an abrasive strip on the drum, lower sanding drum to where it touches top of conveyor belt.
2. At this drum position, the depth scale pointer should align with zero mark on scale. If it does not, loosen screw (Figure 9) and raise or lower pointer to align with zero on scale.
3. Retighten screw.

Note: Depending on desired accuracy, you may need to repeat this process when installing different abrasive grits.

This calibration of depth gauge establishes “absolute” distance from conveyor belt to drum, while the control panel allows setting of zero point for relative distance.

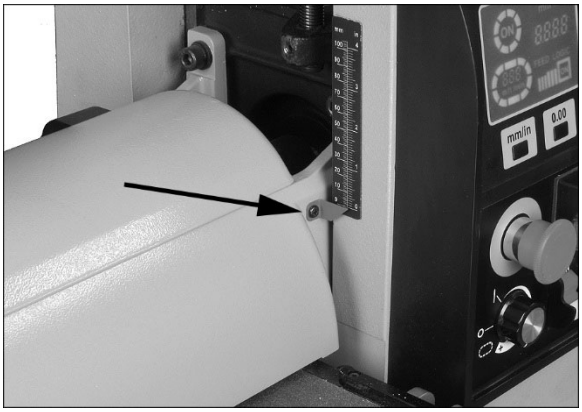


Figure 9

7.2 **Conveyor belt tension/tracking**

Conveyor belt tension adjustment may be necessary during the break-in period to compensate for belt stretching.

7.2.1 **Tension adjustment**

1. Remove left side cover (Figure 10) by removing two socket head screws with 4mm hex wrench.

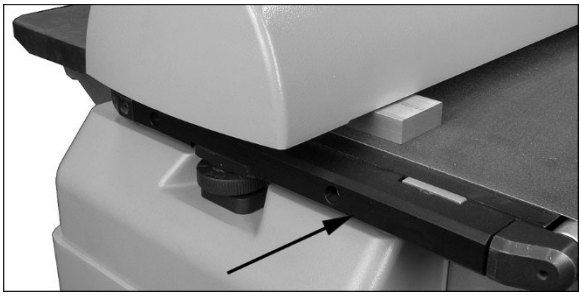


Figure 10

2. Adjust take-up screw nuts (Figure 11) with a 17mm wrench. Do this on both sides of conveyor to obtain approximately equal tension on both sides of sanding belt when taut.

NOTE: Insufficient belt tension will cause slippage of conveyor belt on drive roller during sanding operation. The conveyor belt is too loose if it can be stopped by hand pressure applied directly to top of moving conveyor belt. Excessive belt tension can result in bent rollers, bent brackets, and/or premature wearing of bushings or conveyor belt.

3. Reinstall left side cover when tensioning is complete.

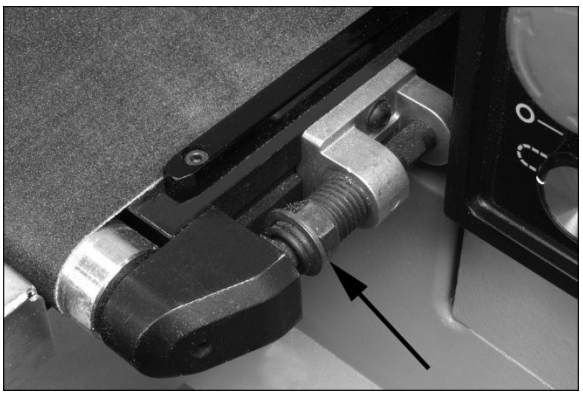


Figure 11

7.2.2 **Tracking adjustment**

A belt tracks correctly when it moves centrally on the conveyor rollers without drifting to either side. Tracking adjustments are made while conveyor belt is running.

1. Make sure proper belt tension has been achieved (see *7.2.1 Tension adjustment*).
2. Turn on conveyor and set to maximum speed. Watch for a tendency of conveyor belt to drift to one side of conveyor. If it drifts, tighten or loosen take-up screw nut on *right side* of conveyor (Figure 11).

   Note: Adjust take-up screw nut only 1/4 turn at a time. Then allow time for belt to react to adjustments before proceeding further.

   Try to avoid over adjustments, as this may affect belt tension. If tension is affected, if may become necessary to remove left side cover and use both take-up screw nuts to accomplish tensioning and tracking.

7.2.3 **Trackers**

The sander comes equipped with “Trackers”, ceramic guides that reduce the amount of adjustments needed to keep the conveyor belt tracked (centered) on the conveyor bed. See Figure 12. These guides have a magnetic backing to keep them in place. If a Tracker wears through, it can be reversed by turning it over. See *sect. 11.0 Tracker Kit* for more information about re-setting trackers.

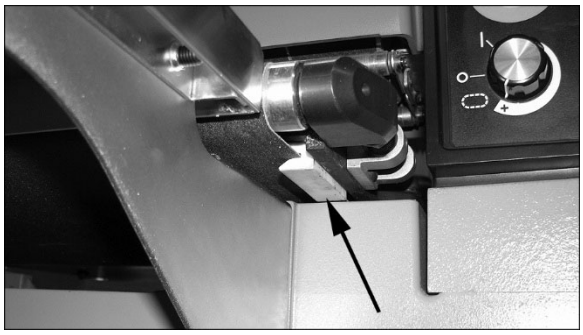


Figure 12

7.4 **Inspecting drum alignment**

The sanding drum must be parallel to conveyor bed for proper machine operation. The sanding drum comes pre-aligned from the manufacturer. If a problem with drum alignment should occur, follow the instructions below.

First, inspect the alignment with a gauge of some kind. The following procedure uses a steel block as a gauge.

1. Unplug sander from power source.
2. Open dust cover and remove abrasive strip from drum.
3. Insert gauge (A, Figure 13) between drum and conveyor bed at outboard side of drum.

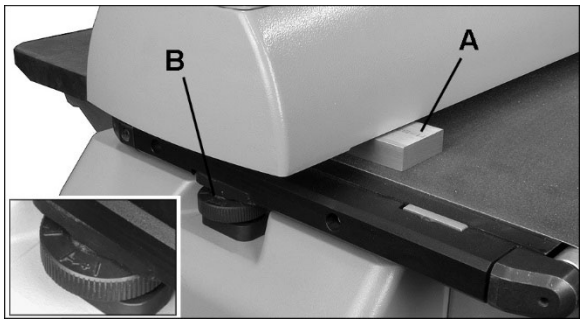


Figure 13

4. With dust cover open, lower sanding drum while slowly rotating drum by hand, until drum lightly contacts gauge.
5. Remove gauge and place under drum at inboard side.
6. If drum does not contact gauge equally on both ends of drum, alignment is needed.

To align drum:

7. Turn adjustment dial (B, Figure 13) to raise or lower outboard end of table. Follow directional marks on dial (**+** to raise).

7.4.1 **Verifying drum alignment**

Note: This is an operational test. Perform this procedure only after you have become familiar with sander operation.

When sanding boards wider than the drum, table alignment is critical and table must be adjusted exactly level to slightly lower on the outboard end. This will prevent any ridges from developing in the stock. Always check this on a piece of scrap wood, as follows, before sanding the work piece.

1. Run a piece of scrap wood approximately 6” wide by 30” to 40” long through the sander sideways so that end of board extends past outboard side of drum.
2. Without changing drum height, rotate board 180° and sand the same side.
3. If a ridge is visible where the drum overlaps, lower table at outboard end slightly by turning dial (B, Figure 13).
4. Repeat this process until the ridge is eliminated and entire board is sanded.

TIP: Place a mark on adjustment dial to keep track of how much dial rotation is needed to change drum alignment for wider (over 22”) sanding. When sanding narrow stock (less than 22”) turn dial opposite direction the same amount as the initial wide sanding so that drum is again parallel.

7.5 **Tension roller adjustment**

The infeed and outfeed rollers are tensioned to provide downward pressure on the workpiece to prevent slippage on the feed conveyor. Tension rollers have been set by the manufacturer, but should be inspected and may require adjustment as the sander receives use.

⚠WARNING **Improperly adjusted tension rollers (i.e. those set too high, rendering them non-functional) could allow kickback of pieces being sanded.**

You can increase or decrease tension roller pressure by turning the screws on the tension roller brackets (Figure 14).

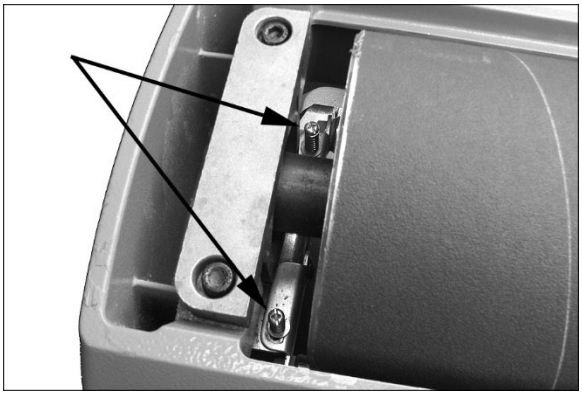


Figure 14

Too much tension roller pressure can result in a “snipe” mark, which is a visible line running across the width of the board and located approximately 2-3/8” from end of board.

If snipe occurs on the leading end of board, adjust outfeed tension roller. If the snipe occurs on trailing end of board, adjust infeed tension roller.

7.6 **Storage cabinet**

Open cabinet by pulling latch outward and rotating left, as shown in Figure 15.

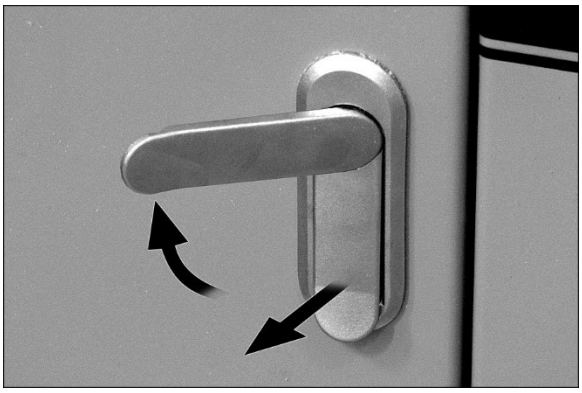


Figure 15

8.0 Operations

Before using your drum sander, review the previous sections on initial set-up and adjustment. Before operating, make sure an abrasive strip is mounted and a proper dust collection system is connected.

8.1 Basic Operating Procedure

1. Establish depth of cut.
2. Start dust collection system.
3. Start sanding drum.
4. Start conveyor and select feed rate.
5. Feed stock through machine.

To feed stock through the sander, rest and hold board to be sanded on conveyor belt, allowing conveyor belt to carry board into drum. Once stock is halfway through, reposition yourself to outfeed side of machine to receive and control board as it exits.

8.2 Controls and LED display

Figure 16 shows control panel functions.

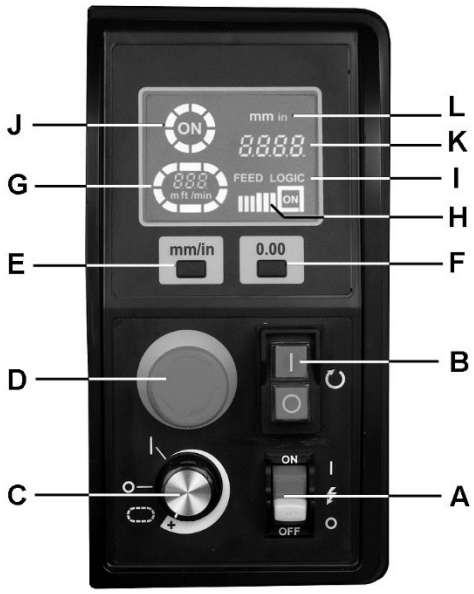


Figure 16

A – Main power switch
B – Drum motor switch
C – Conveyor speed dial
D – Emergency stop (E-stop)
E – Unit selector
F – Zero depth reset
G – Conveyor speed indicator
H – Load indicator
I – Feed Logic ON indicator
J – Drum motor circle/ON indicator
K – Drum height
L – Drum height units

8.3 Drum motor operation

1. Connect power supply to machine. – *Display remains dark.*
2. Turn on main power switch (A). – *Display will illuminate. Racetrack (G) may flash continuously, indicating that emergency stop is still engaged.*
3. Rotate emergency stop (D) clockwise to disengage stop.
4. Turn on drum motor by firmly pressing switch (B) – *Illuminated circle (J) will run, and "ON" will illuminate.*

   Note: If drum motor does not start, make sure conveyor speed dial (C) is set to OFF.
5. Load indicator (H) may illuminate. – *When motor is running without load, one bar may illuminate. More bars are illuminated as load increases.*
6. Turn off drum motor switch (B). – *"ON" will go dark. Circle (J) will continue running for 5 seconds while drum slows to a stop. Then circle (J) will stop running.*

⚠CAUTION Do not open drum hood until drum comes to a complete stop.

8.4 Feed Logic activation

If load on the sanding drum becomes excessive and motor is overloaded or exceeds specified current, "FEED LOGIC" (I) flashes and "ON" (I) lights up. Conveyor will be automatically slowed to highest efficient speed.

8.5 Conveyor motor operation

Rotate conveyor speed dial (C, Figure 15) clockwise to start and increase speed of conveyor. – *Racetrack (G) will illuminate and run. Conveyor speed will show inside racetrack.*

IMPORTANT: If sander is shut off or E-stop is engaged, conveyor speed dial must be returned to OFF position in order to restart sander.

8.6 Unit conversion

Toggle unit selector button (E) to select imperial or metric units. Units for drum height and conveyor speed will change accordingly on the display. When power is turned off, units default to imperial.

8.7 Drum height setting

Lower drum until it just contacts workpiece, then push zero depth reset button (F, Figure 16) to zero the setting of drum height from workpiece. The handwheel is then used to lower the drum in exact increments for each pass, by viewing the depth on the control display (K).

When handwheel is rotated to move drum downward below zero point, a negative sign will appear before the depth number (K).

NOTE: Drum height will remain in control panel memory if E-stop button is pressed. Drum height will *not* remain in memory if main power switch is turned OFF.

8.8 Emergency stop

Press E-stop button (D, Figure 16) to shut down all machine operations. When E-stop is pressed, drum motor stops and “ON” (J) goes dark on display. Conveyor motor also stops, and racetrack (G) flashes.

IMPORTANT: The E-stop remains engaged until it is rotated clockwise for release. Also, the conveyor speed dial (C, Figure 16) must be returned to OFF position before restarting machine.

The E-stop is designed for emergency shut-off. Under normal circumstances, use the other switches on the control panel to turn off machine functions.

8.9 Switch safety key

To prevent unauthorized use of sander, turn off main switch and pull out safety key (Figure 17). Store key in a safe place. Key must be reinserted to start sander.

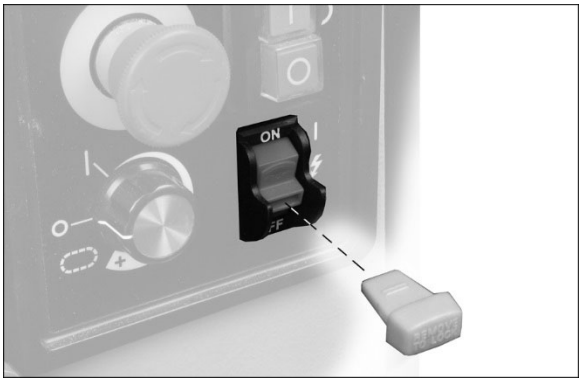


Figure 17

8.10 Setting depth of cut

Adjusting the drum sander for proper contact between abrasive and stock determines the depth of cut. The depth of cut is controlled by the height adjustment handwheel.

It may take some experimentation to determine the proper depth of cut, given the variables of abrasive grit, type of wood, and feed rate. For best results, use scrap wood to practice sanding and to develop skill and familiarity with the machine before doing finish work.

A combination of several variables will determine proper depth of cut to use, including the following:

1. Abrasive type and grit size.
2. Width of piece being processed.
3. Hardness of piece.
4. Feed rate of conveyor belt.

8.11 Establishing drum height

A good rule of thumb when sanding with grits finer than 80 is to place the stock to be sanded under the drum and lower drum until it contacts the stock. Drum should still rotate by hand. *Without changing drum height,* finish feeding the stock under the sander.

Start sanding drum and sand the stock at that same position.

⚠WARNING Do not start drum while in contact with stock.

For sanding with grits coarser than 80, you can lower the drum slightly.

Always maintain control of stock. Through practice you will learn the proper depth of cut considering the variables above.

8.12 Selecting conveyor rate

A faster feed rate allows faster sanding but fewer revolutions of the drum per inch of sanding. A slower feed rate provides more revolutions of the drum per inch of sanding to allow a greater depth of cut and smooth sanding.

Begin experimenting with feed rate set to about 40% to 50% of maximum. The best feed rate will depend on a number of factors, including type of stock, grit and depth of cut used, and whether the stock is fed directly in line with the conveyor bed or at an angle. If the drum motor is lugging down, if the conveyor belt is slipping, or if you observe a ripple effect on the stock, slow the feed rate. If the finish is smooth and the machine is not overworking, you can experiment using a faster feed rate.

The Feed Logic control continuously monitors the load on the drum motor, and automatically regulates the speed of the conveyor motor to maintain highest feed rate without overload. When “Feed Logic” flashes and “ON” illuminates on the display (I, Figure 16), the Feed Logic control has detected too great a depth of cut and/or too fast a feed rate.

If load on the drum motor increases, Feed Logic will decrease the conveyor feed rate and will stop the conveyor under extreme conditions. If load on the drum motor decreases, Feed Logic will increase the feed rate but will not increase it faster than the speed the user has preset on the dial.

The best and most consistent finish will be achieved if the conveyor does not change speed during operation. A change in conveyor speed may affect the finish surface. If the finish is affected, make another sanding pass without changing any settings.

If the finish is still affected, make adjustments by slowing the conveyor and/or decreasing the depth of cut and run the stock through again.

Also try a faster feed rate or less depth of cut if the stock you are working begins to show burn marks. With cherry, hard maple or other hardwoods, using a shallower depth of cut and a faster feed rate will help minimize burn marks.

Slightly angling the stock as it is fed into the machine will also help prevent burning the stock.

Because of the wide range of variables, it is important to experiment with your specific conditions and make adjustments to achieve optimum feed rate. If problems occur, first inspect and adjust feed rate, referring to *sect. 12.0 "Troubleshooting."*

8.13 Maximum performance tips

The versatility designed into the PM22-44 drum sander allows it to be used for a variety of tasks that will boost return on your investment. For example, it will speed up fine sanding work often done with slower, dust-generating hand sanders, and will achieve fine thickness adjustments not possible on some sanders. It can be used to surface figured woods – bird's eye or curly maple, for example – which can be damaged if fed through a planer.

Learning how to use its adjustments and controls will allow you to fine-tune the machine for maximum results. The best results come from experimenting with different abrasive grits and machine adjustments to fit the job at hand. Following is a list of useful tips which can help you improve performance of your sander.

8.13.1 Dust collection

When connecting dust collectors, remember that straight pipe will not restrict airflow as much as flexible tubing. Y's and elbows will restrict airflow less than T's. Also, a hose smaller than 2-1/2" diameter should not be used.

8.13.2 Multiple-piece sanding runs

When abrasive planing (or thickness sanding) a run of similar pieces that you want to have the same thickness, it is best to determine the thickness of the thinnest piece and process all pieces to that same thickness in one session. Be aware that the sander will remove cups and crowns in the workpiece; consider this when measuring and processing stock to the same thickness.

8.13.3 Simultaneous multiple pieces

When sanding multiple pieces simultaneously, make sure to stagger (step) the pieces across the width of the conveyor belt. This provides better contact with the tension rollers. Try to process only multiple pieces of similar thickness.

If there is a significant thickness difference, the thinner pieces can slip on the conveyor belt if they do not contact the tension rollers. Also note that pieces thicker than 3/4" should be longer than the minimum normally recommended to prevent tipping of the stock.

8.13.4 Edge sanding

When edge sanding, the sander will mimic the opposite edge of the stock which is lying on the conveyor belt. Because of this, it is important for the stock edge to have been ripped at the proper angle to the face before the sanding process. When edge sanding stock that is less than 3/4" wide or more than 2" high, it is good procedure to stack and clamp several pieces together to prevent them from slipping or tipping on the conveyor belt.

8.13.5 Sanding imperfect stock

When sanding stock with a cup or crown, place the crown up. This will stabilize the stock to help prevent tipping or rocking during sanding. After the crown has been removed and the top is flat, turn the stock over and sand the opposite side. To avoid personal injury, take special care when sanding stock that is twisted, bowed, or otherwise varies in thickness from end to end. If possible, support such stock as it is being sanded to keep it from slipping or tipping. Use extra roller stands, help from another person, or hand pressure on the stock, to minimize potentially hazardous situations.

8.13.6 Face frames and raised panel doors

It is very important to have the proper abrasive contact when doing this type of sanding. If the machine is set to take an excessive depth of cut, the result can be a gouge or dip as the drum goes from sanding the rails at full width to sanding just a few inches of width on the stiles. To prevent this make sure, when using abrasives finer than 80 grit, that the drum is in contact with the wood but can still be spun by hand. If there is room, angling the stock on the conveyor belt can also help. Slowing the conveyor feed when coming to a rail in the stock can help prevent a dip or gouge. This allows the abrasive to work the wider width with less effort, and to achieve better consistency of the finished surface.

8.13.7 Stock feeding angle

Some pieces, because of their dimensions, will need to be fed into the machine at a 90° angle (perpendicular to drum). However, even a slight offset angle of stock will provide for more effective stock removal. The optimum feeding angle for stock removal is about 60°.

Angling the workpiece for stock removal provides other advantages, such as less loading of certain areas of the drum due to glue lines or mineral streaks in the stock, more even wear of abrasive strips, potentially faster feed rates, and lighter loads

on the motor. Note that to get the best final finish, however, the stock should be fed through the machine so it will be sanded in line with the grain of the wood on the final one or two passes.

9.0 Maintenance

⚠WARNING Before doing maintenance on the machine, disconnect it from the electrical supply by pulling out the plug or switching off the main switch. Failure to comply may cause serious injury.

9.1 Cleaning and lubrication

For best results, make cleaning the sander a regular shop procedure. Allowing excess build-up of dust and debris can adversely affect performance through loading of the abrasives, slippage on the conveyor table, and/or the accumulation of material inside the drums which can throw off the center of balance.

Leave the dust collector on when cleaning dust from the drums. Also brush the conveyor belt after cleaning operations. If not cleaned, the conveyor belt could allow stock to slip during sanding operations.

NOTE: Bearings are pre-sealed and require no lubrication.

- Lubricate conveyor bushings as needed, and check for wear.
- Lubricate elevating leadscrew (A, Figure 18) as needed.
- Clean sawdust from abrasive strip and brush dust from conveyor belt.
- Keep gib areas clean (B, Figure 18). Periodically lubricate gibs lightly with grease.
- Blow dust from motors and switches. Blow dust from inside of sanding drum, which may cause vibration or offset the center of balance.
- Check all set screws for tightness on parts such as bearings, conveyor bed, and couplings.

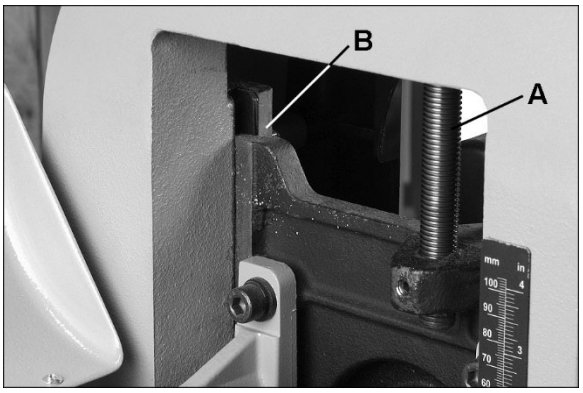


Figure 18

9.2 Drum maintenance

The drum should not require removal from the machine under normal circumstances. Should maintenance ever become necessary, the drum has been designed for easy removal and replacement.

Remove four socket head screws (C, Figure 19). Carefully lift out drum with coupling (D) attached.

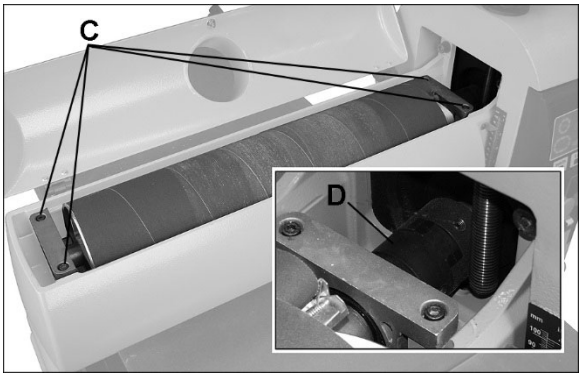


Figure 19

9.3 Conveyor belt replacement

1. Disconnect sander from power.
2. Raise drum to highest position.
3. Loosen take-up screw nuts (Figure 11) on both sides of conveyor to relieve belt tension, and slide the driven roller fully inward.
4. Remove three (3) screws that attach conveyor table to base. Lift up conveyor table and remove it from machine. Avoid tearing the belt on any edges underneath the conveyor bed. *Do not allow the Trackers to drop, as they may break.*
5. Install new belt along with trackers (see *sect. 11.0*), and re-install conveyor table. Tension and track the new belt.

Note: If the conveyor belt continually tracks to one side of the machine, reversing the belt on the conveyor bed may remedy the problem. To make sure the conveyor bed is not twisted, place a level on the conveyor bed. Level the machine if needed. If there is still a problem, proceed with the steps below:

Step 1: Check conveyor drive roller and driven roller to make sure they are parallel to surface of conveyor bed. To do this, first center conveyor belt on the bed. Then lay a straight-edge on the exposed edge of conveyor bed on left (outboard) side, extending it over the roller. Note distance between roller and straightedge.

Step 2: Now repeat Step 1 on right (inboard) side of conveyor. Compare the measurements from side to side. If they are not equal, loosen one of the brackets that hold the roller in place. Tip this bracket until distance between roller and straight-edge are equal from side to side, then tighten bracket.

10.0 **Optional abrasives**

Each abrasive comes in pack of 3.

1792201	PM2244 Precut Abrasive 36G (qty. 3)
1792202	PM2244 Precut Abrasive 60G (qty. 3)
1792203	PM2244 Precut Abrasive 80G (qty. 3)
1792204	PM2244 Precut Abrasive 100G (qty. 3)
1792205	PM2244 Precut Abrasive 120G (qty. 3)
1792206	PM2244 Precut Abrasive 150G (qty. 3)
1792207	PM2244 Precut Abrasive 180G (qty. 3)
1792208	PM2244 Precut Abrasive 220G (qty. 3)

10.1 **Abrasive dimensions for PM2244**

Use this diagram to cut after-market abrasive strips to fit (or use a new Powermatic-supplied strip as a template).

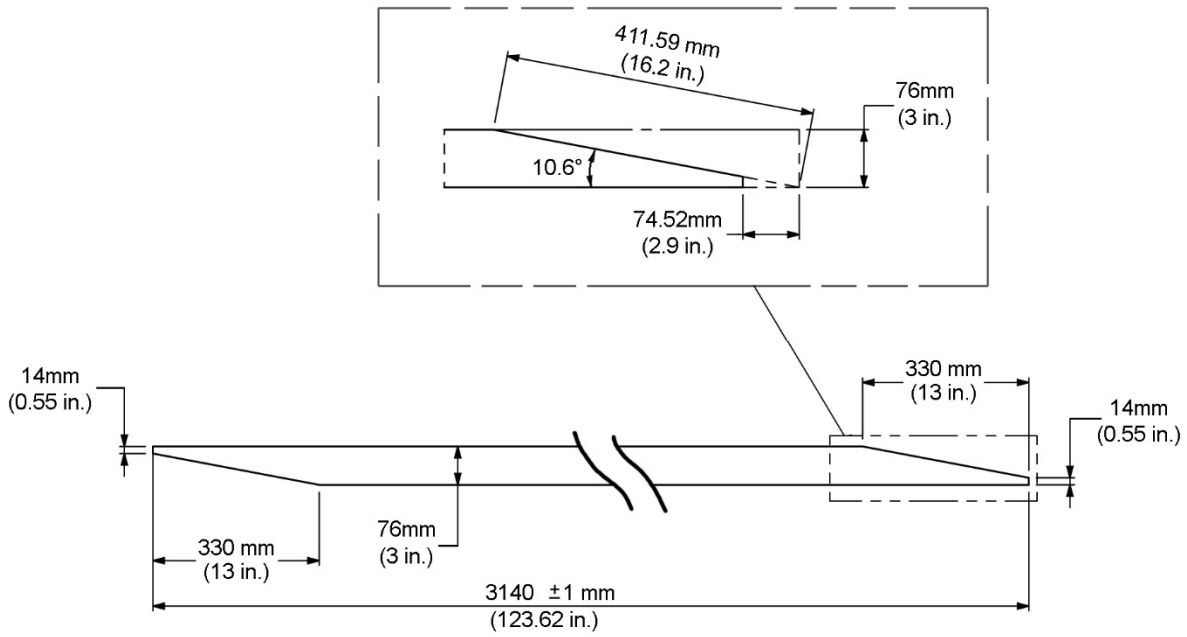


Figure 20

11.0 **Tracker kit**

Stock No.: PM2244-213

Trackers dramatically reduce tracking adjustments of conveyor belts. They are already installed on your sander. The following information is for resetting or replacing your trackers, should that become necessary.

1. Disconnect power to sander.
2. Raise drum as high as it will go, and remove side cover (see Figure 10).
3. Loosen both conveyor take-up screw nuts to relieve conveyor belt tension and slide driven roller fully inward.
4. Remove the three screws (A, Figure 21) holding conveyor table to sander base.

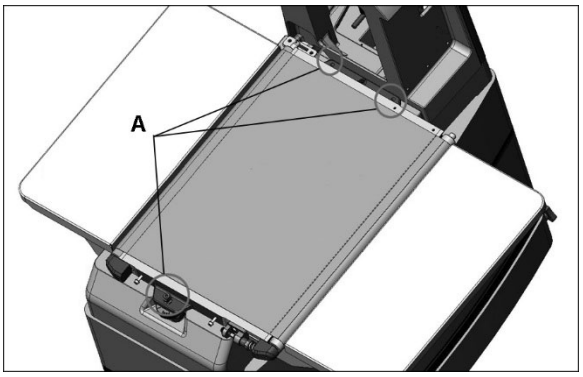


Figure 21

5. Lift conveyor table and slide it out of sander. Turn conveyor table upside down. Be careful not to damage conveyor belt.
6. The tracker is positioned on underside of conveyor bed near driven roller (Figure 22). The back of tracker is magnetized and will stick to side wall of conveyor bed. Do not install tracker if edge of conveyor belt is damaged or torn.
7. With first tracker installed, slide conveyor belt into bottom slot of tracker. **Note:** When installed properly, only bottom lip of tracker will be visible. The top slot can be used if bottom slot wears out.
8. Install second tracker opposite the first. Use both trackers unless the second one does not fit in conveyor or unless conveyor belt is damaged.
9. Turn conveyor table right-side up and re-position it onto sander. Re-attach three (3) mounting screws and tighten. **Caution:** Be careful not to knock tracker(s) out of conveyor bed when turning conveyor over. Trackers may break if allowed to fall.
10. Make sure all switches are off. Connect power to sander and plug in motor.
11. Tension conveyor belt using take-up screw nuts. If both trackers are installed, it is very important to have equal tension on both sides of conveyor belt. Tighten take-up screw nuts on both sides until equal tension is obtained.
12. To check tension, turn on conveyor full speed and place both hands on conveyor. If conveyor belt can be stopped, continue tensioning until conveyor belt cannot be stopped by both hands on the belt while conveyor is operating at full speed.
13. Make sure conveyor belt runs smoothly inside tracker slot and that the magnet is holding the tracker in position.
14. Continue to watch tracking of conveyor and adjust only if necessary, making sure to keep equal tension on conveyor belt at all times and not allowing conveyor belt to buckle under conveyor bed.

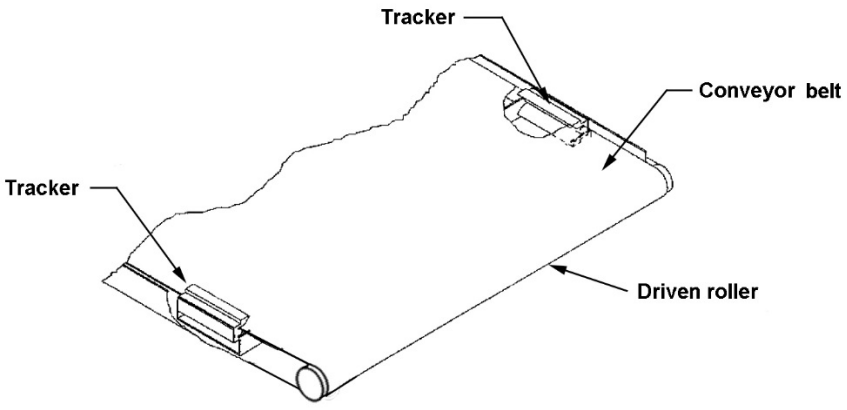


Figure 22 – Underside of conveyor shown

12.0 **Abrasives**

The abrasive material you choose will have a substantial effect on the performance of your sander. Variations in paper type, weight, coating and durability all contribute to achieving your desired finish.

12.1 **Selecting drum abrasives**

It is important to select the proper grit of abrasive for the type of sanding being performed to achieve maximum results. As with any sanding operation, first begin sanding with a coarser grit, depending upon the roughness of the stock or the amount of stock to be removed. Then progressively work toward finer grits. The chart below shows the general uses for the various grits.

The amount of stock to be removed is a major consideration when choosing the grit grade with which to begin. Grits 24, 36, 50 and 60 are primarily designed for stock removal. Grits 24 and 36 will remove the most material in one pass, whether you are doing abrasive planing, cleaning up glued panels, or flattening stock. Grits from 100 through 220 are primarily finishing grits designed to remove the scratch pattern from the previous grit used. For best results, never skip more than one grit grade when progressing through a sanding sequence.

For fine work, such as furniture, try not to skip any grit grades during the sanding process.

In general, premium quality abrasives will produce a better finish with a less noticeable scratch pattern.

Note: Grits that are too fine can sometimes burnish the wood and leave a glossy surface which will not accept stains evenly. This will vary by type of wood. Oak, for example, is susceptible to burnishing because of its open pores.

12.2 **Cleaning abrasive strips**

Regularly clean the abrasive strip on the drum with commercially available cleaning sticks, following the manufacturer's directions. When cleaning, also brush the stick crumbs from the drum while it is still rotating.

In some cases, heavy loaded areas can be removed with Plexiglas held on edge over the rotating drum.

⚠CAUTION **Always wear eye protection while performing sandpaper cleaning, and take all precautions to avoid any contact of hands or clothing with the rotating drum.**

Cloth-backed abrasives can be cleaned by soaking in paint thinner or mineral spirits for 20 minutes to one hour, then using a brush to remove any build-up. Dry the abrasive strips completely before using. Any used solvents should be discarded in compliance with environmental regulations.

12.3 **Increasing abrasive life**

Abrasive life can be increased not only by cleaning, but by removing the abrasive strip from the drum and reversing it. To do this, remove the strip and use what was the trailing end as the starting end on the left (outboard) side of the drum. Reversing the strip will provide a fresh set of cutting edges on the abrasive.

12.4 **Abrasive selection guide**

Grit	Common Application
24	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
36	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
50	Surfacing and dimensioning boards, truing warped boards
60	Surfacing and dimensioning boards, truing warped boards.
80	Light dimensioning, removal of planer ripples.
100	Light surfacing.
120	Light surfacing, minimal stock removal.
150	Finish sanding, minimal stock removal.
180	Finish sanding only, not for stock removal.
220	Finish sanding only, not for stock removal.

Table 2

13.0 **Troubleshooting the PM2244 Drum Sander**

Symptom	Possible Cause	Correction *
Drum motor won't start when ON button is pushed.	No incoming current.	Check connections at plug or circuit panel.
	Safety key missing from switch.	Install safety key.
	E-stop still engaged (racetrack is flashing).	Disengage E-stop by rotating clockwise.
	Conveyor speed dial not reset after using E-stop (racetrack is flashing).	Turn speed dial to OFF position, then try starting machine.
	Low voltage.	Check power line for proper voltage.
	Open circuit in motor or loose connection.	Inspect all lead connections on motor for loose or open connections.
Motor will not start: fuses blow or circuit breakers trip.	Short circuit in line cord or plug.	Inspect cord or plug for damaged insulation and shorted wires.
	Short circuit in motor or loose connections.	Inspect all connections on motor for loose or shorted terminals or worn insulation.
	Incorrect fuse or circuit breaker in power line.	Install correct fuse or circuit breaker.
Motor overheats.	Air circulation through motor restricted.	Clean motor fan with compressed air to restore normal air circulation.
	Motor overloaded (Feed Logic not functioning properly.	Have controls inspected and repaired.
Motor stalls, resulting in blown fuses or tripped circuit.	Short circuit in motor or loose connections.	Inspect connections on motor for loose or shorted terminals or worn insulation.
	Low voltage.	Correct low voltage conditions.
	Incorrect fuse or circuit breaker in power line.	Install correct fuse or circuit breaker.
Loud, repetitive noise or vibration coming from machine.	Fasteners loose.	Inspect fasteners and tighten where needed.
	Motor fan is hitting cover.	Tighten fan or shim fan cover.
	Machine not level.	Place sander on level floor; shim if needed.
Conveyor motor will not run.	Conveyor speed dial not reset after using E-stop.	Turn speed dial to OFF position, then try starting machine.
Drum motor shuts off when finger leaves drum motor on/off switch.	Not pressing drum motor switch long enough.	Press and hold for at least 1 second.
	Conveyor speed dial not reset after using E-stop or switching off main switch.	Turn speed dial to OFF position, then try starting machine.

* **WARNING:** Some corrections may require a qualified electrician.

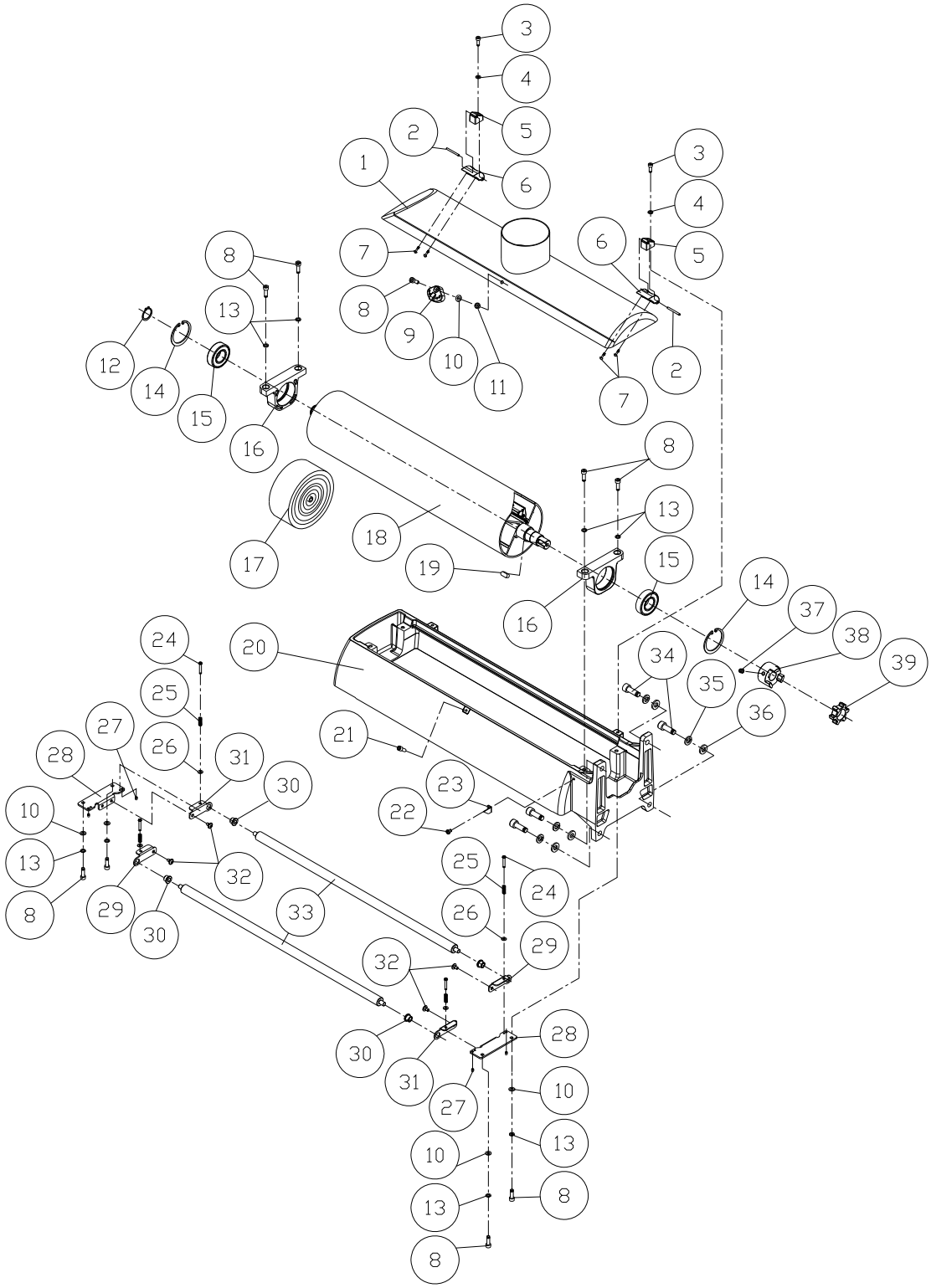
Table 3

14.0 **Replacement parts**

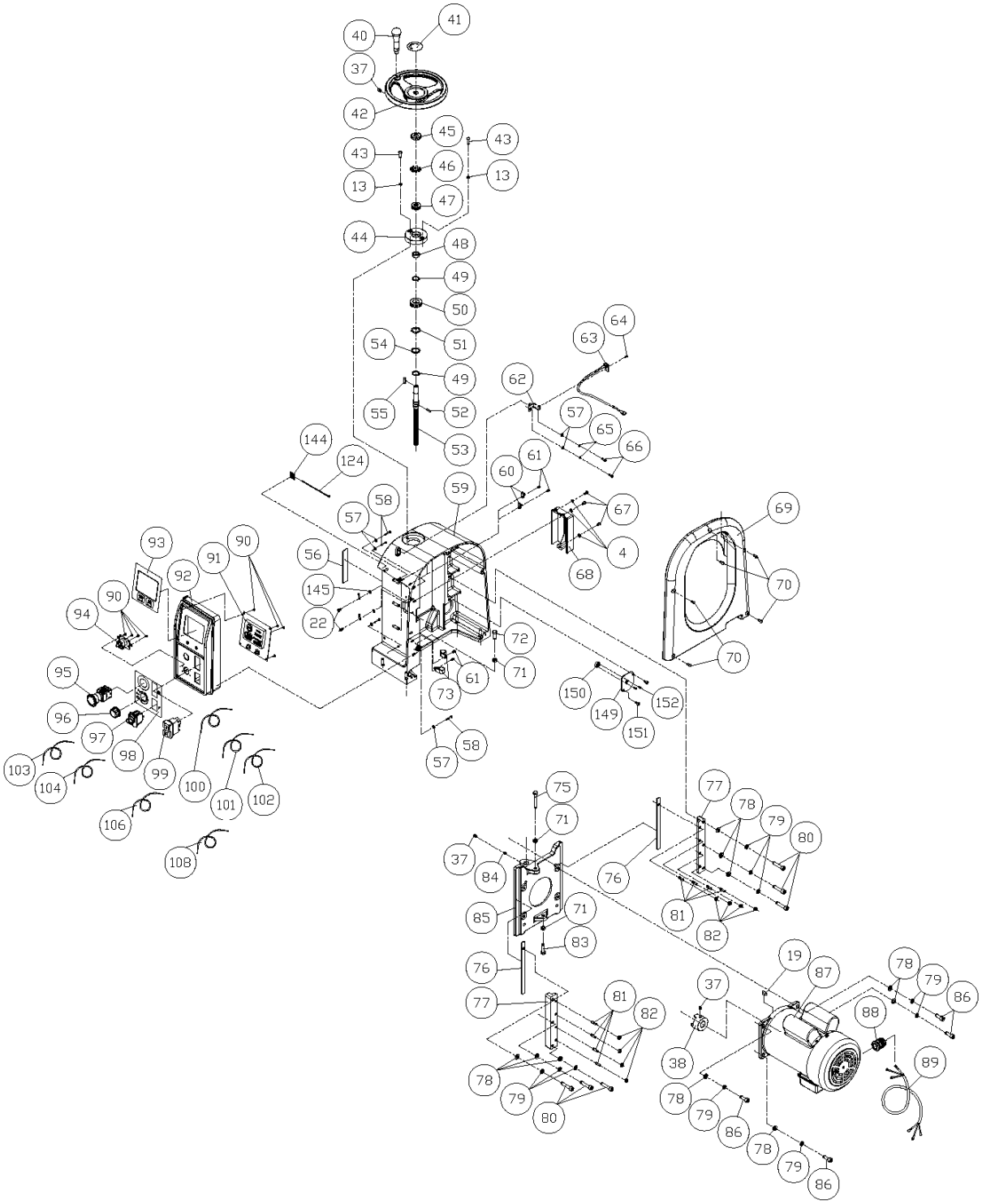
Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m., CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

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.

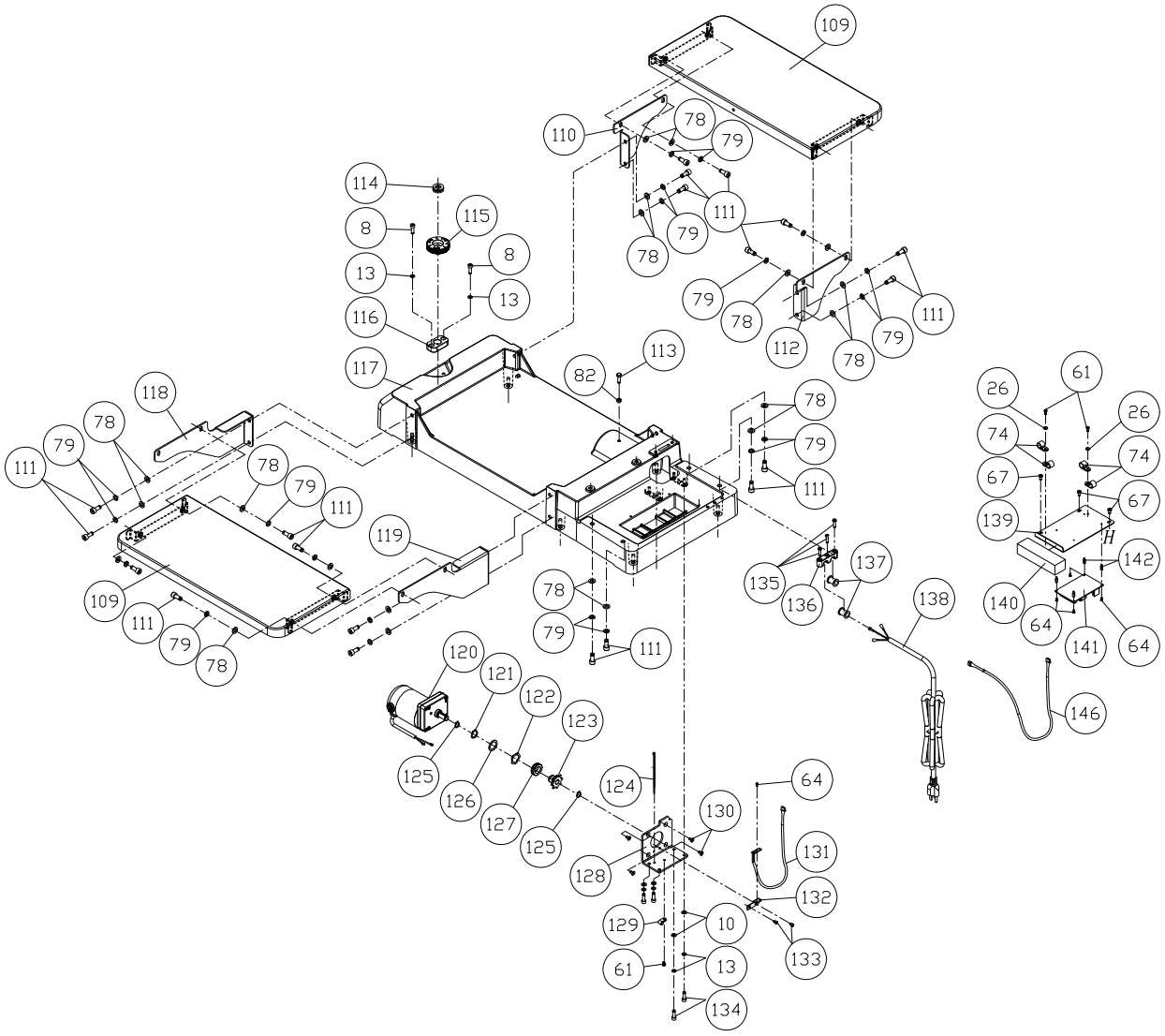
14.1.1 **PM2244 Head Assembly I – Exploded View**



14.1.2 **PM2244 Head Assembly II – Exploded View**



14.1.3 **PM2244 Head Assembly III – Exploded View**



14.1.4 **PM2244 Head Assembly – Parts List**

Note: Some parts may be listed for reference only and not available individually.

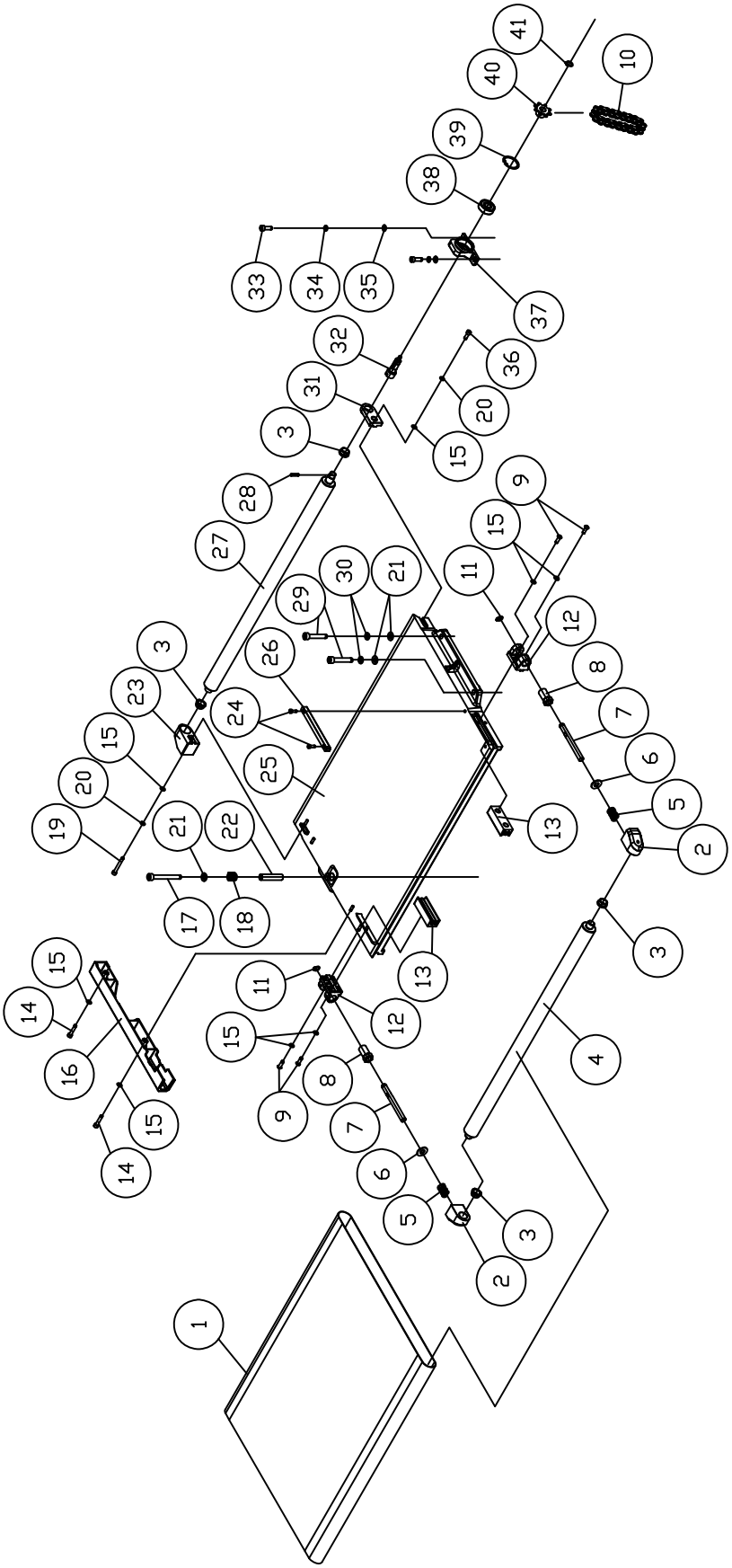
Index No	Part No	Description	Size	Qty
1	PM2244-101	Dust Hood		1
2	JCH4-16	Spring Pin	3*35	2
3	F005365	Socket Head Cap Screw	M5*0.8P*16L	2
4	F002633	Flat Washer	5.2*10*1.0T	5
5	PM2244-105	Drum Carriage Hinge		2
6	PM2244-106	Dust Hood Hinge		2
7	F011287	Self Tapping Screw	M4*1.41P*12L	4
8	F005383	Socket Head Cap Screw	M6*1.0P*20L	11
9	PM2244-109	Knob		1
10	F002636	Flat Washer	6.3*13*1.0T	9
11	F001694	Nylon Insert Lock Nut	M6*1.0P	1
12		Retaining Ring (Re:18A)	STW-25	1
13	F002111	Lock Washer	M6	16
14		Retaining Ring (Re:18A)	RTW-52	2
15		Ball Bearing (Re:18A)	6205VV	2
16		Bearing Housing (Re:18A)		2
17		Abrasive[1]	80 grit, 3” width	1
18		Drum (Re:18A)		1
18A	PM2244-118A	Drum Assembly (includes #12,14-16,18,19,37-39)		1
19		Key (Re:18A)	8*7*18	2
20	PM2244-120	Drum Carriage		1
21	F005665	Socket Head Cap Screw	M6*1.0P*15L	1
22	F001208	Phillips Pan Head Screw	M5*0.8P*8L	3
23	PM2244-123	Pointer		1
24	PM2244-124	Phillips Round Head Screw	M4*0.7P*25L	4
25	PM2244-125	Compression Spring		4
26	F002631	Flat Washer	4*10*1.0T	6
27	F010384	Socket Set Screw	M4*0.7P*4L	4
28	PM2244-128	Tension Roller Bracket		2
29	PM2244-129	Left Tension Roller Suspension Bracket		2
30	PM2244-130	Oilite Bushing		4
31	PM2244-131	Right Tension Roller Suspension Bracket		2
32	PM2244-132	Shoulder Screw		4
33	PM2244-133	Tension Roller		2
34	F005429	Socket Head Cap Screw	M10*1.5P*30L	4
35	F002115	Lock Washer	M10	4
36	F002643	Flat Washer	10*20*3.0T	4
37	F010407	Socket Set Screw	M8*1.25P*8L	4
38		Coupling (Re:18A)		2
39	PM2244-139	Rubber Cushion		1
40	PM2244-140	Handle		1
41	PM2244-141	Direction indication Label		1
42	PM2244-142	Handwheel		1
43	F009897	Socket Head Button Screw	M6*1.0P*20L	2
44	PM2244-144	Bearing Housing		1
45	PM2244-145	Locking Nut		1
46	PM2244-146	External Tooth Lock Washer		1
47	BB-51102	Thrust Bearing	51102	1
48	PM2244-148	Oilite Bushing		1
49	F006047	Retaining Ring	STW-20	2
50	PM2244-150	Ring Magnet		1
51	PM2244-151	Wave Washer	WW-20	1
52	PM2244-152	Spring Pin	4*16	1
53	PM2244-153	Height Adjusting Screw		1
54	PM2244-154	Special Flat Washer	21*37*1T	1
55	PM2244-155	Key	6*6*20	1

[1] see sect. 10.0 for replacement abrasives.

Index No	Part No	Description	Size	Qty
56	PM2244-156	Scale		1
57	F002631	Flat Washer	4.3*10*1.0T	6
58	PM2244-158	Self Tapping Screw	M4*1.59P*25L	4
59		Motor Shroud		1
60	PM2244-160	Cable Clamp	ACC-1.5-B	2
61	F001177	Phillips Pan Head Screw	M4*0.7P*10L	7
62	PM2244-162	Elevation Hall Sensor Bracket		1
63	PM2244-163A	Elevation Hall Sensor Assembly		1
64	F001148	Phillips Pan Head Screw	M3*0.5P*6L	6
65	F002107	Lock Washer	M4	2
66	F005352	Socket Head Cap Screw	M4*0.7P*12L	2
67	F001088	Phillips Pan Head Screw	M5*0.8P*10L	6
68	PM2244-168	Cable Cover		1
69	PM2244-169	Motor Shield Cover		1
70	F009886	Socket Head Button Screw	M5*0.8P*12L	5
71	F003074	Hex Nut	M8*1.25P	3
72	F008789	Hex Cap Screw	M8*1.25P*25L	1
73	PM2244-173	Cable Clamp	ACC-6-B	2
74	PM2244-174	Cable Clamp	ACC-4-B	4
75	F008805	Hex Cap Screw	M8*1.25P*55L	1
76	PM2244-176	Gib		2
77	PM2244-177	Clamping Block		2
78	F002640	Flat Washer	8.5*16*2.0T	30
79	F002114	Lock Washer	M8	30
80	F005407	Socket Head Cap Screw	M8*1.25P*40L	6
81	PM2244-181	Special Socket Set Screw	M6*1.0P*20L	8
82	F003071	Hex Nut	M6*1.0P	9
83	F008794	Hex Cap Screw	M8*1.25P*30L	1
84	PM2244-184	PU Block		1
85	PM2244-185	Motor Plate		1
86	F005404	Socket Head Cap Screw	M8*1.25P*25L	4
87	PM2244-187	Sanding Motor	1.75HP, 115V, 60Hz	1
	PM2244-187SC	Start Capacitor (not shown)	300MFD 125VAC	1
	PM2244-187RC	Running Capacitor (not shown)	50μF 300VAC	1
	PM2244-187FC	Fan Cover (not shown)		1
	PM2244-187CF	Cooling Fan (not shown)		1
88	PM2244-188	Strain Relief	PGA16-14B	1
89	PM2244-189A	Motor Cable	12AWG*3C	1
90	JSG96-262	Self Tapping Screw	M3*1.06P*10	8
91	PM2244-191A	Display Assembly		1
92	PM2244-192	Control & Display Panel (includes #93,98)		1
93	LM000075	Display Panel Label		1
94	PM2244-194A	Variable Resistor Set		1
95	PM2244-195	Emergency Stop		1
96	PM2244-196	Knob		1
97	PM2244-197	Power Switch		1
98	LM000076	Control Panel Label		1
99	PM2244-199	Magnetic Switch		1
100	PM2244-1100	Connection Cable (No.L2, Black)	12AWG*1C*150mm	1
101	PM2244-1101A	Connection Cable (No.L1, Black)	12AWG*1C*600mm	1
102	PM2244-1102A	Connection Cable (No.N1, White)	12AWG*1C*600mm	1
103	PM2244-1103	Connection Cable (No.L2, Black)	12AWG*1C*600mm	1
104	PM2244-1104	Connection Cable (No.N2, White)	12AWG*1C*600mm	1
106	PM2244-1106A	Connection Cable (No.1)	24AWG*4C*300mm	1
108	PM2244-1108A	Connection Cable (No.A1)	18AWG*1C*600mm	1
109	PM2244-1109	Extension Table		2
110	PM2244-1110	Rear-Left Table Bracket		1
111	F005403	Socket Head Cap Screw	M8*1.25P*20L	20
112	PM2244-1112	Rear-Right Table Bracket		1

Index No	Part No	Description	Size	Qty
113	F008750	Hex Cap Screw	M6*1.0P*25L	1
114	BB-51101	Thrust Bearing	51101	1
115	PM2244-1115	Table Micro-Adjusting Knob		1
116	PM2244-1116	Bracket		1
117	PM2244-1117	Base		1
118	PM2244-1118	Front-Left Table Bracket		1
119	PM2244-1119	Front-Right Table Bracket		1
120	PM2244-1120	Gear Motor	100Volt	1
121	F006046	Retaining Ring	STW-18	1
122	F011908	Wave Washer	WW-18	1
123	PM2244-1123	Sprocket	8T	1
124	PM2244-1124	Cable Tie	ALT-085S-B	2
125	F006041	Retaining Ring	STW-12	2
126	PM2244-1126	Special Flat Washer	18*32*1.0T	1
127	PM2244-1127	Ring Magnet		1
128	PM2244-1128	Gear Motor Plate		1
129	PM2244-1129	Cable Clamp	ACC-2-B	1
130	F010955	Flat Head Socket Screw	M5*0.8P*10L	4
131	PM2244-1131A	Speed Hall Sensor		1
132	PM2244-1132	Speed Hall Sensor Bracket		1
133	F005349	Socket Head Cap Screw	M4*0.7P*6L	2
134	F005382	Socket Head Cap Screw	M6*1.0P*16L	6
135	F001207	Phillips Pan Head Screw	M5*0.8P*20L	3
136	PM2244-1136	Cable Clamp		1
137	PM2244-1137	Cable Protection Bushing		2
138	PM2244-1138	Power Cable	SJT12AWG*3C	1
139	PM2244-1139	Circuit Board Holder		1
140	PM2244-1140	Foam Pad	95*30*22T	1
141	PM2244-1141A	Circuit Board		1
142	PM2244-1142	Standoff		4
144	PM2244-1144	Cable Tie Mount		1
145	PM2244-1145	External Tooth Lock Washer		2
146	PM2244-1146A	Connection Cable (No.6)		1
147	LM000073	Sanding Motor Label (not shown)		1
148	LM000074	Conveyor Motor Label (not shown)		1
149	PM2244-1149	Cover		1
150	PM2244-1150	Bushing		1
151	TS-1502011	Socket Head Cap Screw	M5*0.8P*8L	2
152	TS-1531022	Phillips Pan Head Screw	M3*0.6P*8L	2

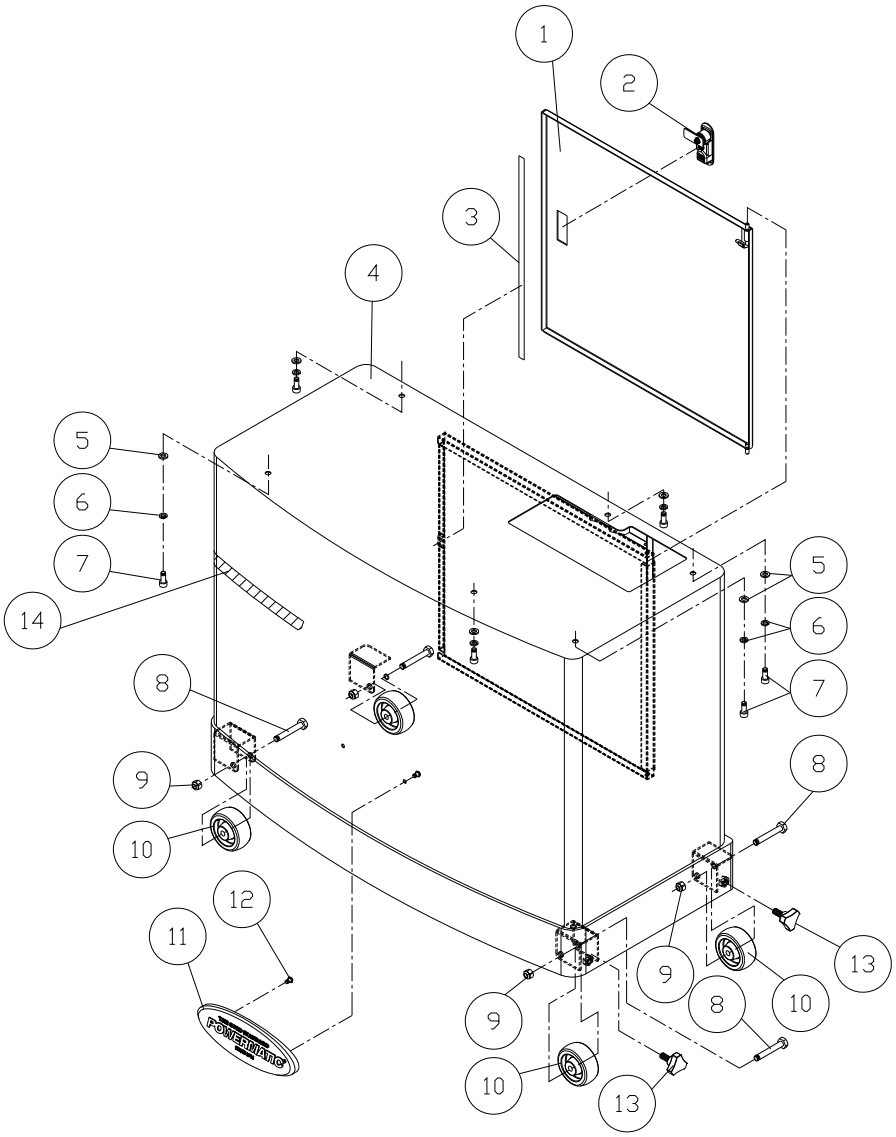
14.2.1 **PM2244 Conveyor Bed Assembly – Exploded View**



14.2.2 **PM2244 Conveyor Bed Assembly – Parts List**

Index No	Part No	Description	Size	Qty
1	PM2244-201	Conveyor Belt		1
2	PM2244-202	Driven Roller Holder		2
3	PM2244-203	Oilite Bushing		4
4	PM2244-204	Driven Roller		1
5	PM2244-205	Compression Spring		2
6	F002643	Flat Washer	10.3*22*2.0T	2
7	PM2244-207	Rod		2
8	PM2244-208	Adjusting Shaft		2
9	F009887	Socket Head Button Screw	M5*0.8P*16L	4
10	PM2244-210	Chain	#410*21P	1
11	F006040	Retaining Ring	STW-10	2
12	PM2244-212	Bracket		2
13	PM2244-213	Tracker Kit (set of 2)		1
14	F005367	Socket Head Cap Screw	M5*0.8P*25L	2
15	F002633	Flat Washer	5.2*10*1.0T	8
16	PM2244-216	Side Cover		1
17	F005413	Socket Head Cap Screw	M8*1.25P*70L	1
18	PM2244-218	Compression Spring		1
19	F005370	Socket Head Cap Screw	M5*0.8P*40L	1
20	F002108	Lock Washer	M5	3
21	F002640	Flat Washer	8.5*16*2.0T	3
22	PM2244-222	Sleeve		1
23	PM2244-223	Left Driving Roller Holder		1
24	F005352	Socket Head Cap Screw	M4*0.7P*12L	2
25	PM2244-225	Conveyor Bed		1
26	PM2244-226	Guide Bar		1
27	PM2244-227	Driving Roller		1
28	PM2244-228	Spring Pin	4*18	1
29	F005405	Socket Head Cap Screw	M8*1.25P*30L	2
30	F002114	Lock Washer	M8	2
31	PM2244-231	Right Driving Roller Holder		1
32	PM2244-232	Shaft		1
33	F005383	Socket Head Cap Screw	M6*1.0P*20L	2
34	F002111	Lock Washer	M6	2
35	F002636	Flat Washer	6*13*1T	2
36	F005365	Socket Head Cap Screw	M5*0.8P*16L	1
37	PM2244-237	Sprocket Holder		1
38	BB-6201VV	Ball Bearing	6201VV	1
39	F006031	Retaining Ring	RTW-32	1
40	PM2244-240	Sprocket	10T	1
41	F006041	Retaining Ring	STW-12	1

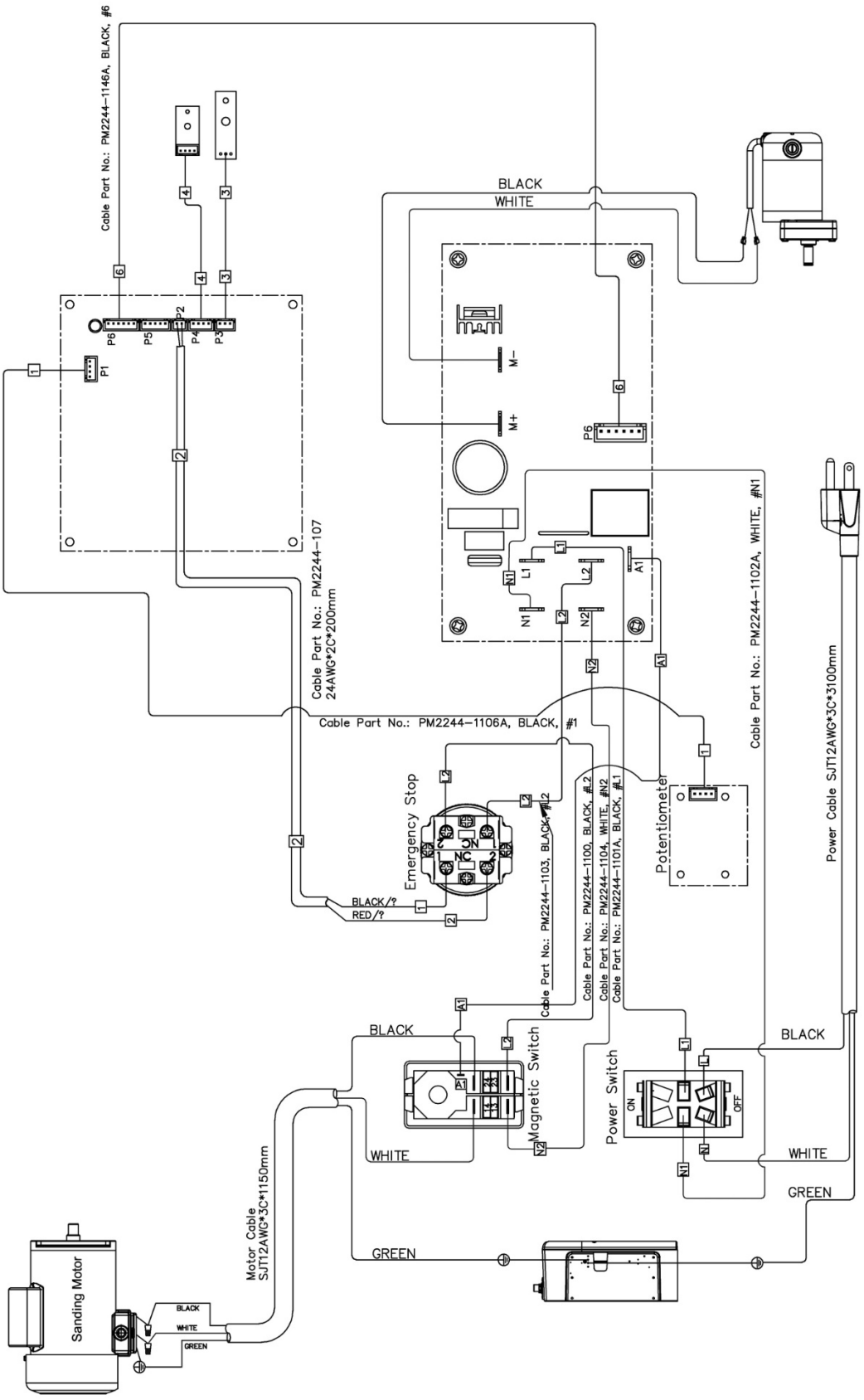
14.3.1 **PM2244 Cabinet Assembly – Exploded View**



14.3.2 **PM2244 Cabinet Assembly – Parts List**

Index No	Part No	Description	Size	Qty
1	PM2244-301	Cabinet Door		1
2	PM2244-302	Door Latch		1
3	PM2244-303	Foam Strip		1
4	PM2244-304A	Cabinet		1
5	F002640	Flat Washer	8.5*16*2.0T	6
6	F002114	Lock Washer	M8	6
7	F005403	Socket Head Cap Screw	M8*1.25P*20L	6
8	F006242	Hex Cap Bolt	3/8"-16NC*2-1/2"L	4
9	F001511	Nylon Insert Lock Nut	3/8"-16NC	4
10	PM2244-310	Caster		4
11	PM2000-105	Powermatic Name Plate		1
12	F000105	Phillips Round Head Screw	1/4"-20NC*3/8"L	2
13	PM2244-313	Screw Knob		2
14	PM2244-314	Powermatic Stripe Set		1
15	LM000071	Warning Label		1
16	LM000072	ID Label, PM2244		1

15.0 **Electrical Connections – PM2244 Drum Sander**



16.0 **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.

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