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POWERMATIC®

Operating Instructions and Parts Manual

18-inch Variable Speed Drill Press

Model PM2800B



Powermatic

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Part No. M-1792800B
Revision E 08/2018
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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 the warning labels if they become obscured or removed.
4. This drill press 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 drill press, do not use until proper training and knowledge have been obtained.
5. Do not use this drill press 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 machine. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
7. Before operating this drill press, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.
8. Wear ear protectors (plugs or muffs) during extended periods of operation
9. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
10. Make certain the switch is in the OFF position before connecting the machine to the power supply.
11. Make certain the machine is properly grounded.
12. Make all machine adjustments or maintenance with the 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 the 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 blade 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. Keep drill bits sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
25. Turn off machine and disconnect from power before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
26. Do not stand on the machine. Serious injury could occur if the machine tips over.
27. Never leave machine running unattended. Turn the power off and do not leave the machine until spindle comes to a complete stop.

28. Remove loose items and unnecessary work pieces from the area before starting the machine.
29. 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.

⚠ **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.

SAVE THESE INSTRUCTIONS

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.

2.0 About this manual

This manual is provided by Powermatic covering the safe operation and maintenance procedures for a Powermatic Model PM2800B Drill Press. 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.

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!**

Record your purchase information here for quick reference:

Stock no.:
Model no.:
Date of purchase:
Place of purchase:

3.0 **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 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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5.0 **Specifications**

Model number PM2800B
Stock number 1792800B

Motor and electricals:

- Motor type ..... totally enclosed fan cooled, induction, capacitor start
- Horsepower ..... 1 HP
- Phase ..... single
- Voltage ..... 115/230V (prewired 115V)
- Cycle 60Hz
- Listed FLA (full load amps) ..... 15/7.5 A
- Starting amps ..... 62/31 A
- Running amps (no load) ..... 12.3 A
- Start capacitor 300µF, 250VAC
- Power transfer ..... belt
- On/off switch ..... push/pull, with safety key and power indicator lamp
- Motor speed ..... 1725 RPM
- Power cord ..... 14 AWG, 6-1/2 ft. (198cm)
- Power plug installed ..... yes
- Recommended circuit size[1] ..... 20A for 115V; 15A for 230V
- Sound emission ..... 90 dB at 40"(1m) without load
- Laser ..... Class II

[1] *subject to local/national electrical codes.*

Head and Capacities:

- Swing ..... 18" (460mm)
- Chuck style and shank capacity ..... keyed, 5/8" (16mm)
- Chuck arbor taper JT-3
- Spindle taper JT-3/MT-2
- Spindle travel ..... 6" (152mm)
- Quill diameter ..... 2.6" (66mm)
- Maximum speed range ..... 250 to 3000 RPM
- Maximum spindle to table distance ..... 26-5/8" (676mm)
- Maximum chuck to table distance ..... 22-3/8" (568mm)
- Maximum spindle to base distance ..... 44-3/4" (1136mm)
- Maximum chuck to base distance ..... 40-1/2" (1029mm)

Materials:

- Head ..... cast iron
- Table ..... cast iron
- Column ..... steel
- Base ..... cast iron
- Fence ..... aluminum

Table:

- Table size ..... 20-1/2" L x 14" W (521 x 355mm)
- Table miter slots (2) ..... 11/32"W x 3/4"H (8.7 x 19mm)
- Table T-slots (2) ..... 7/32" W x 3/8" H (5.6 x 9.5mm)
- Distance between table slots (centers) ..... 7-5/8" (194mm)
- Table tilt ..... 0 to 90 deg. L and R
- Table insert ..... 3-3/4" x 3-3/4" (95 x 95mm)
- Fence size ..... 20" L x 2-3/4" H (508 x 70mm)

Base and Column:

- Base size ..... 13-1/2" L x 20-1/2" W (343 x 521mm)
- Base working surface ..... 10" L x 12" W (254 x 305mm)
- Base slots (2) ..... 5/8" W x 4-5/8" L (16 x 118mm)
- Distance between base slots (centers) ..... 5-1/8" (130mm)
- Column diameter ..... 3-1/8" (80mm)

Dimensions and Weights:

- Overall dimensions, assembled ..... 18" L x 20-1/4" W x 71" H (457 x 514 x 1803mm)
- Net weight ..... 246 lb (112kg)
- Shipping weight ..... 266 lb (120kg)

5.1 **Base Hole Centers for PM2800B**

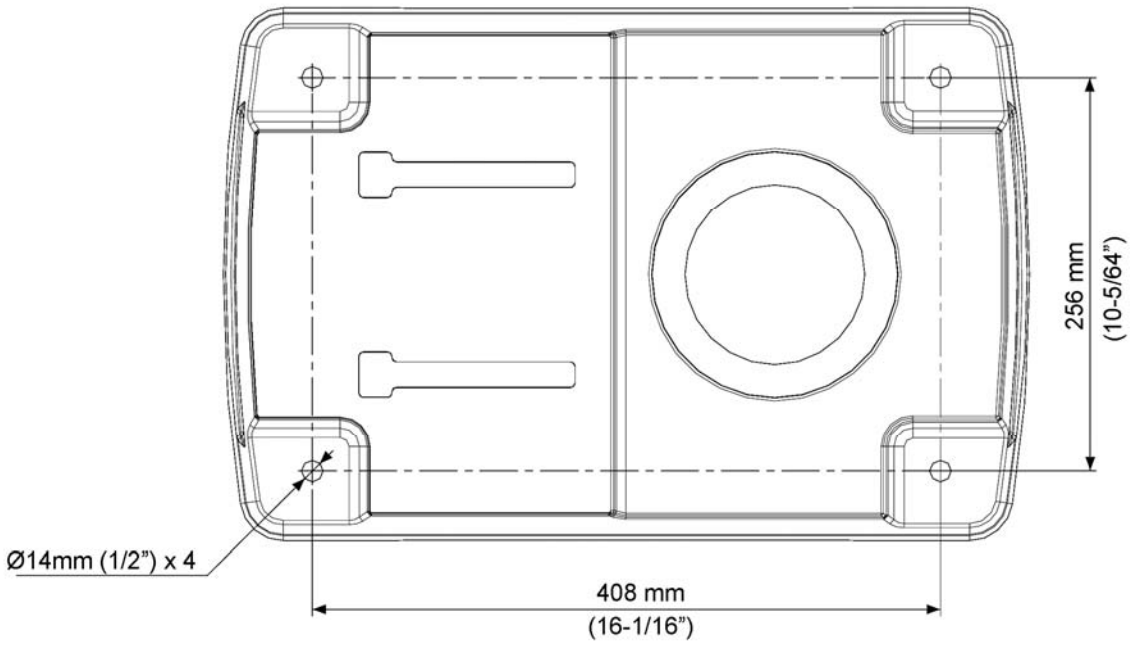


Figure 1

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**

6.1 **Shipping contents**

See Figure 2.

1 Drill press head
1 Column assembly
1 Base
1 Table and bracket – **A**
1 Rack – **B**
1 Column ring – **C**
1 Handle, table elevating – **D**
1 Fence with adjustable work stop – **E**
1 Drift key – **F**
4 Socket head cap screws, M10x40 – **G**
1 Handle, table locking – **H**
3 Downfeed handles – **J**
1 Handwheel – **K**
1 Handle – **L**
1 Worm – **M**
4 Hex wrenches, 3/5/6/8mm – **N**
1 Keyed chuck – **O**
1 Chuck arbor – **P**
1 Chuck key **– R**
1 Owner's manual
1 Warranty card



Figure 2

(items not to scale)

6.2 **Tools required for setup:**

(not provided)

Rubber mallet (or hammer and wood block)
Wrenches: 24,19,17,14 and 10mm
2, 3 and 5mm hex wrenches

An adjustable wrench may be used in place of open end wrenches.

6.3 **Unpacking and cleanup**

Remove all contents from shipping carton. Inspect contents for shipping damage – if any damage, report it to your distributor and shipping agent. Do not discard carton or packing material until drill press is assembled and running satisfactorily.

If any parts are missing, contact your distributor or Powermatic. (Check machine first to see if any parts were pre-assembled.)

Exposed metal surfaces on the drill press have been factory-coated with a protectant. Remove this with a soft rag moistened with a light solvent, such as mineral spirits, or WD-40®. Do not use an abrasive pad, and do not use gasoline, paint thinner or acetone, as these will damage plastic components and painted surfaces.

The drill press should be placed in a dry area, with a level floor and good lighting. Provide enough space around drill press to allow for operations and any adjustments or servicing.

6.4 **Assembly**

NOTE: Use an assistant to help assemble the drill press.

1. Place base upon a level floor. It may be secured to floor with lag screws (not provided) through four holes in the base. Refer to *Figure 1* for hole spacing.
2. If you do not wish permanent attachment to the floor, the drill press can be bolted to a plywood panel which will serve as an expanded base and further stabilize the machine. Use a high grade of plywood at least 3/4" thick. It should be large enough to prevent vibration, sliding or moving of drill press during operation. Do not use a mobile base with this machine.
3. Attach column assembly to base with four M10x40 socket head cap screws (A, Figure 3). Tighten firmly.

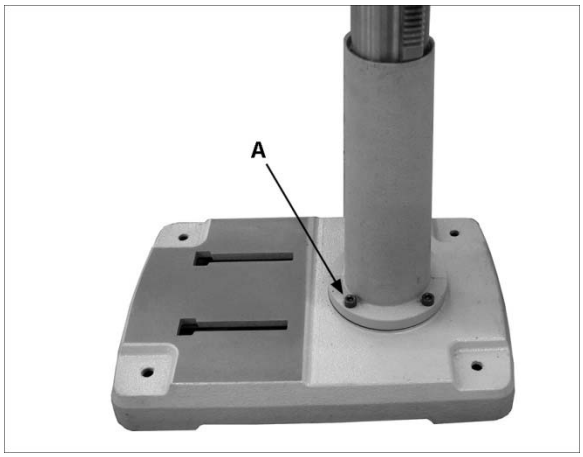


Figure 3

4. Insert shaft of worm through table bracket hole, while meshing worm with the preinstalled gear. See Figure 4.

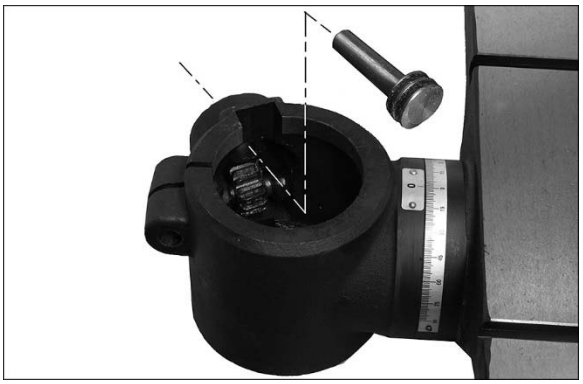


Figure 4

5. Position rack (B, Figure 5) into the slot in table bracket (C), meshing the rack teeth with the worm gear.
6. Hold the rack in the slot, while setting the table bracket over the column. Then *slide table bracket and rack together* down the column.
7. The lower end of the rack should rest in the lip of the holder, as shown in Figure 3.
8. Slide table elevating handle (D, Figure 5) onto protruding shaft of worm, and tighten set screw in handle with a 3mm hex wrench. Crank the handle counterclockwise to lower table bracket down the column.
9. Place ring (E, Figure 5) onto column and slide it down over top edge of rack. Tighten set screw on ring.

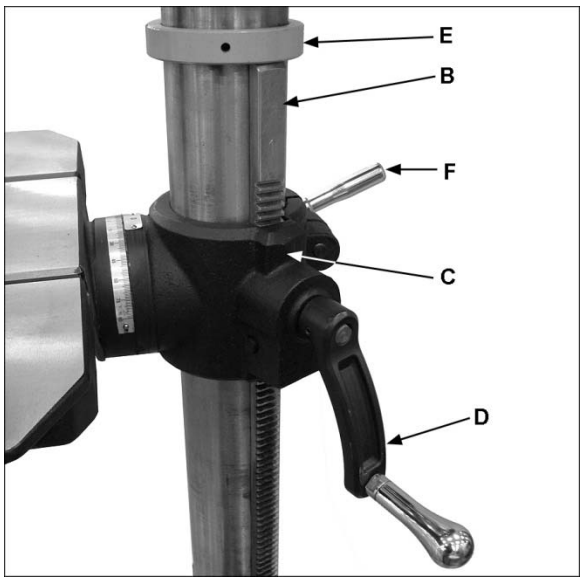


Figure 5

10. Screw locking handle (F, Figure 5) into table bracket. Tighten locking handle to secure table bracket's position on column.
11. Slightly loosen bolt (G, Figure 6) beneath table, and loosen locking handle (H). Rotate table to horizontal, and retighten handle and bolt (H,G).

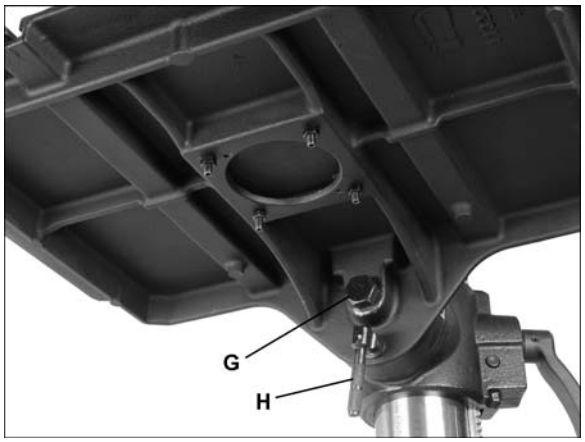


Figure 6

12. With the help of an assistant, mount head assembly to column, and tighten the two set screws (J, Figure 7).



Figure 7

13. Install three downfeed handles into hub by screwing them in completely, and tightening each nut against hub (Figure 8). A flat is provided on each handle for a wrench to help tighten if needed.

    NOTE: The downfeed handles can be installed on either side of head.



Figure 8

14. Install handwheel (K_1, Figure 9) on speed change shaft by aligning slot in handwheel with spring pin on shaft. Tighten with washer and crown nut.

15. Install handle (K_2, Figure 9) into threaded hole in handwheel. Tighten by using a wrench on the flat.

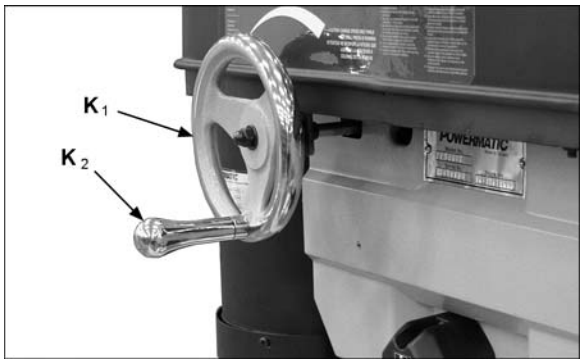


Figure 9

16. Slide fence into t-slots from front edge of table. To secure fence, push down handles (Figure 10).

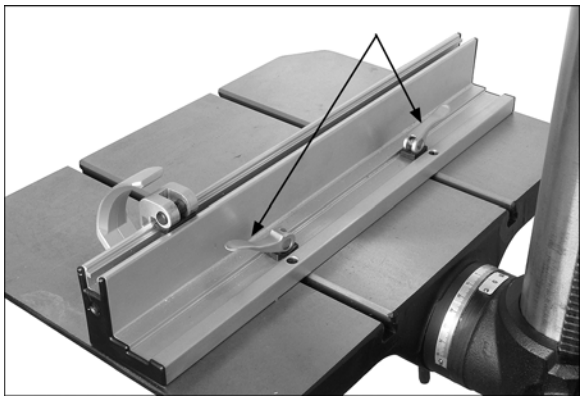


Figure 10

17. Thoroughly clean entire arbor and inside of chuck (Figure 11) with a soft rag and solvent, such as mineral spirits. Any grease or residue in these areas can cause the pieces to separate, creating a safety hazard and potential damage to the tool.

    (Note: Your chuck and arbor may have come preassembled. If so, you only need to clean the exposed arbor at this time.)

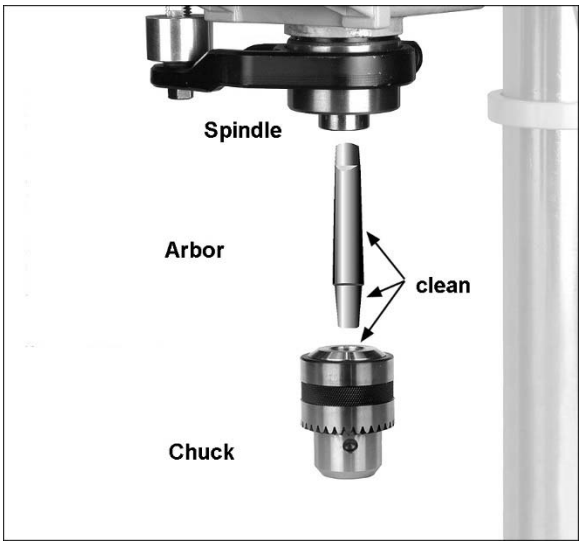


Figure 11

18. Slide arbor up into spindle.

19. Firmly push chuck by hand onto taper of arbor.

20. Rotate chuck until the jaws are completely retracted into the chuck (to prevent damage to jaws). Use two or three sharp taps from a rubber mallet, or a hammer and a block of wood, against bottom of chuck to seat chuck securely onto arbor.

⚠CAUTION Do not use a steel hammer directly against chuck, as this may damage chuck.

6.5 Table insert leveling

Referring to Figures 12 and 13:

1. Remove two screws beneath table insert (L, Figure 12).

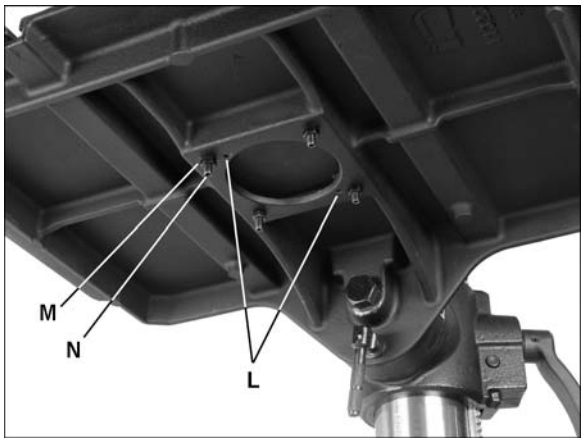


Figure 12

2. Position fence over table insert to use as a level (see Figure 13), and tighten it down.
3. Loosen nuts (M) first, then turn set screws (N) as needed until insert is level with table surface. Re-tighten nuts (M) up against table.

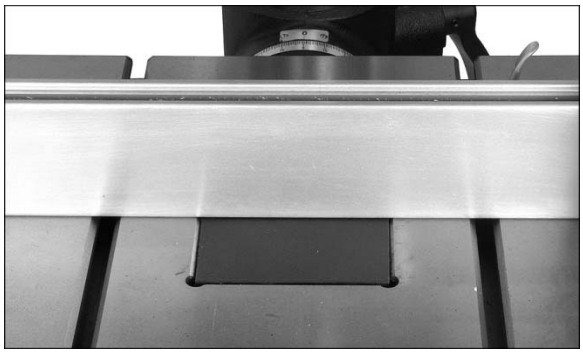


Figure 13

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.

The PM2800B drill press is rated at 115/230V power, and is pre-wired for 115 volt. The drill press comes with a plug designed for use on a circuit with a grounded outlet that looks like the one pictured in **A**, Figure 14.

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

It is recommended that the drill press, when operated on **115 volt power**, be connected to a dedicated 20 amp circuit with a 20 amp circuit breaker or time-delay fuse marked "D". When operated on **230 volt power**, it is recommended that the drill press 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

1. All Grounded, Cord-connected Tools:

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 14. 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.

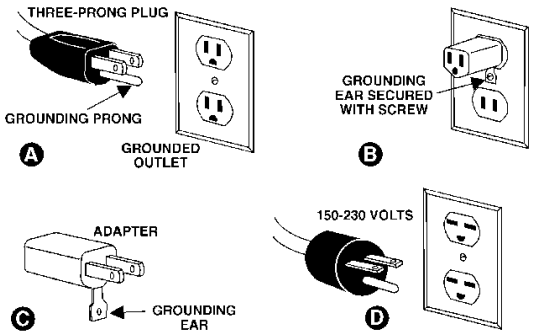


Figure 14

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between **150 - 250 volts**, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in **D,** Figure 14. The tool has a grounding plug that looks like the plug illustrated in **D**. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

7.2 Voltage conversion

If 230V operation is desired, the following instructions must be performed:

1. Disconnect machine from power source.
2. The drill press motor has four leads that are factory connected for 115V operation. For 230V operation, reconnect the leads as shown in diagram inside motor junction box cover. Diagrams are also shown in *section 14.0* of this manual. (In case of discrepancy, diagram inside junction box should take precedence.)
3. The 115V attachment plug supplied with the drill press must be replaced with a UL/CSA listed plug suitable for 230V operation, similar to the plug illustrated in D, Figure 14. Contact your local authorized Powermatic Service Center or qualified electrician for proper procedures to install the plug.
4. The drill press must comply with all local and national codes after the 230-volt plug is installed.

7.3 Extension cords

The use of extension cords is discouraged; try to position equipment near the power source. If an extension cord becomes necessary, 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	

Extension Cord Recommendations

Table 1

8.0 Adjustments

8.1 Table movement

8.1.1 Raise and lower

Referring to Figure 15:

Loosen column locking handle (A, Figure 15). Turn table elevating handle (B) to raise or lower table along column rack. Re-tighten locking handle (A) before attempting to drill.

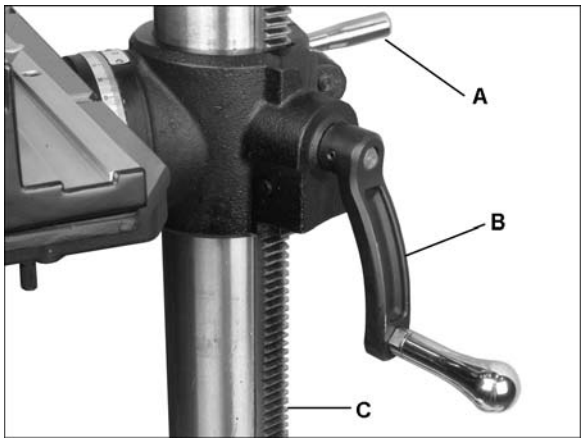


Figure 15

8.1.2 Swing table away

Referring to Figure 15:

When drilling into a long workpiece, swing table out of the way and use drill press base as your table. Slots in the base can be used to mount work holding devices.

1. Loosen column locking handle (A).
2. Swing table to desired position. If rack (C) tends to bind, you will need to nudge the top or bottom end of the rack around the column while swinging table.

3. Tighten column locking handle (A).

8.1.3 Tilt table

Referring to Figures 16 and 17:

1. To tilt table, slightly loosen bolt (D) and loosen handle (E).

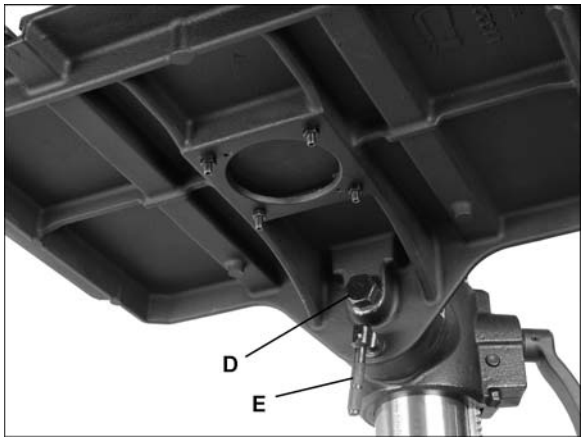


Figure 16

2. Pivot table to desired angle by aligning scale on table to line on indicator plate (Figure 17).
3. Re-tighten bolt (D) and handle (E).
4. When returning table to horizontal position, loosen handle (E) and bolt (D), tilt table back to zero degrees on scale, and tighten handle (E), then tighten bolt (D).

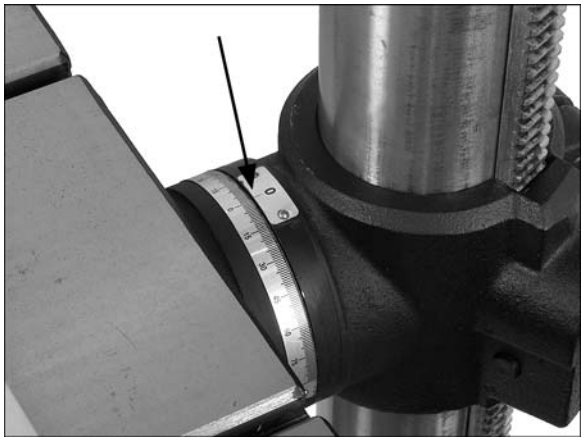


Figure 17

8.2 Chuck and arbor removal

Referring to Figure 18:

1. Disconnect machine from power source.
2. Lower quill assembly with the downfeed handles to expose slot. Rotate chuck to align slots.
3. Insert drift key into slot.
4. Tap drift key into slot until chuck and arbor fall out. **NOTE:** Hold on to chuck to prevent it being damaged as it falls.

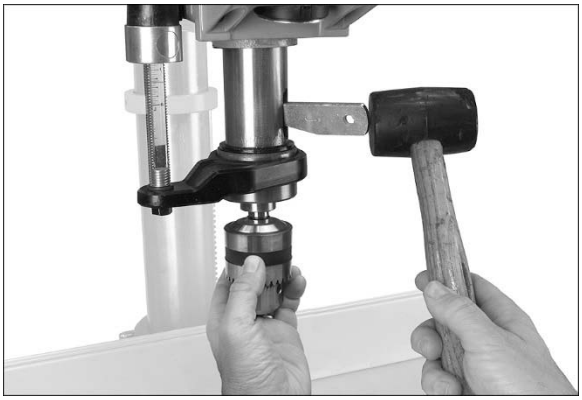


Figure 18

8.3 Changing spindle speeds

⚠CAUTION Change speeds only while drill press is running.

With the drill press running, rotate handwheel (shown in Figure 9) until desired speed is displayed on LED readout at front of head. Speed range is 250 to 3000 RPM.

8.4 Depth stop

The depth stop is useful for repetitive drilling of holes of identical depth.

Referring to Figure 19:

1. Measure distance from tip of drill bit to workpiece. Add to this the desired depth of hole in workpiece.
2. Position top nut (F_1) so that its bottom edge aligns with this measurement on the scale.

   Note: For quick positioning, press button on nut and slide into position; for fine adjustment rotate nut along scale.
3. For less precise drilling, simply lower bit to desired depth, as shown in Figure 19, and slide top nut down to contact collar.
4. The lower nut (F_2) can be used to hold the spindle at a certain depth. Position the lower nut up against the collar. The spindle will stop at this position when the downfeed handle is released.

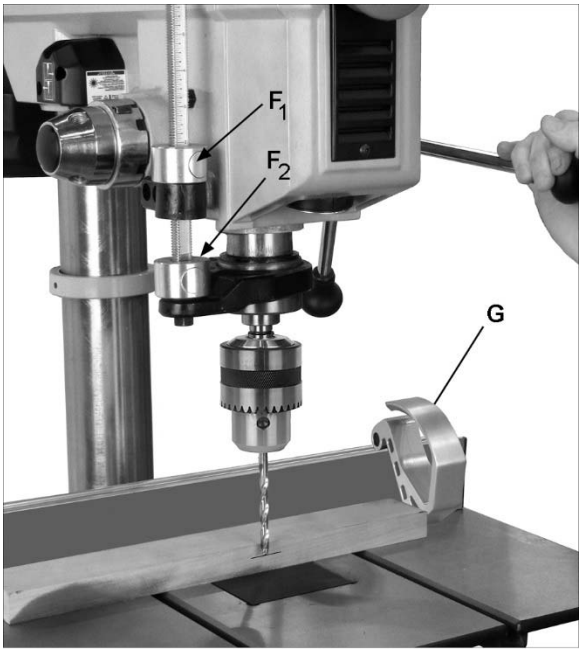


Figure 19

8.5 **Work stop**

The work stop (G, Figure 19) is used for repetitive drilling in boards of identical length. Flip up the work stop to slide it along the fence or to remove it. Pull it down to tighten in position.

8.6 **Return spring**

The tension of the return spring (which raises the spindle after drilling) has been pre-set by the manufacturer. No further adjustment should be attempted unless absolutely necessary. Should it become necessary, proceed as follows.

Referring to Figure 20:

1. Disconnect machine from power source.
2. Pry off cap (H, Figure 20) and remove hex nut and two washers (I). Pull off hub (J).
3. Loosen two inner hex nuts (K) *Do not remove.*
4. Pull out slightly the coil spring cover (L) while firmly holding it. DO NOT allow the coil spring cover to turn freely in your hand, or the spring will unwind.
5. Rotate coil spring cover until tab (M) on the spring retainer engages the next notch in coil spring cover. Rotate coil spring cover counterclockwise to increase spring tension, clockwise to decrease.
6. Make sure coil spring cover is pushed back in, then tighten two hex nuts (K). Do not over tighten. The hex nuts should be tightened against each other.
7. Re-install hub, washers, hex nut and cap.

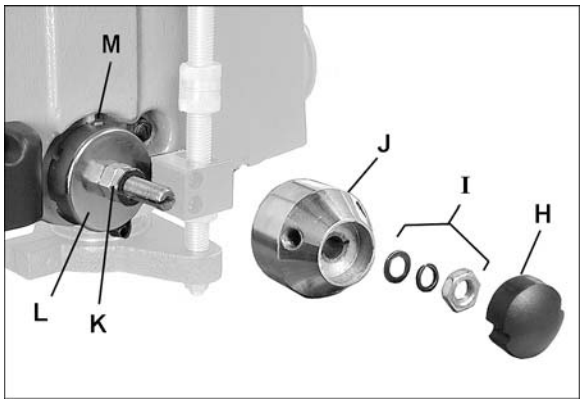


Figure 20

8.7 **Laser adjustment**

Referring to Figures 21 through 24:

⚠WARNING Do not look directly into the laser beam or view it directly with optical instruments. See Figure 21.

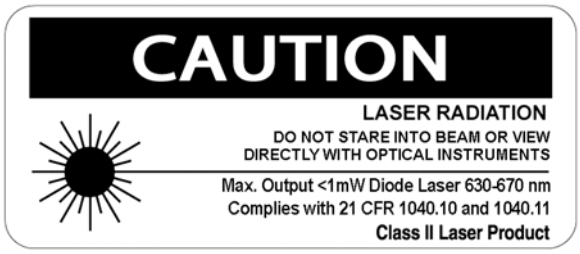


Figure 21

The Laser Assembly has been installed and pre-set at the factory. It should, however, be checked for alignment and any adjustments made before operating the drill press. It should be re-checked periodically, as long-term machine vibration may cause it to become misaligned.

1. Take a length of board (A, Figure 22) and draw a perpendicular line (B) on one side using a square.
2. Insert a small drill bit (C) in chuck (D), then place board (A) on the table on edge against drill bit with the marked-line side toward the back of the drill press.

   Important: The table should be in horizontal position and locked. *Verify that the line* (B, Figure 22) *is perpendicular to the table.*
3. Connect power to the drill press, and turn on the laser using the button at the front of the drill press head.

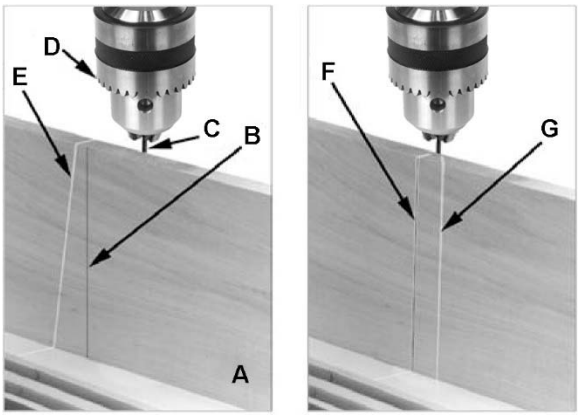


Figure 22

Vertical Alignment

4. Use the socket head screw (H, Figure 23) located toward front of laser assembly, to adjust verticality of laser line. Turn screw as needed (2.5mm hex wrench), and move board side-to-side as needed, until laser light (E) aligns with board marking (B).

5. Adjust the other laser in the same manner. Two parallel laser markings should look like F and G in Figure 22. The distance between the lines will vary with board thickness; however, the lines must be parallel.

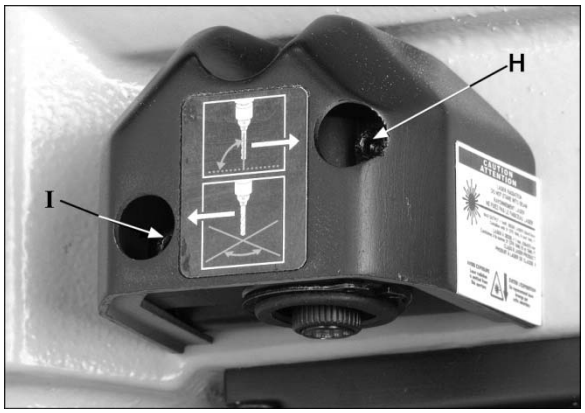


Figure 23

Cross Hair Alignment

6. Place *board* (K, Figure 24) flat on table. Do not allow board to move from this position; use clamps if needed. Bring the bit down until it *leaves a slight perforation* in the board; then raise it back up.

7. Use the socket head screw (I, Figure 23) located toward *back* of laser assembly, to adjust the cross hair. Turn screw as needed until laser line (M) crosses perforation (L).

8. Adjust the other laser assembly in the same manner *until the laser lines form cross hairs* exactly over perforation in board, as shown in Figure 24.

9. Re-check vertical alignment to ensure that the laser lines did not shift during the procedure.

The laser is now calibrated properly and the location of your holes can be centered at the cross hairs for accurate drilling.

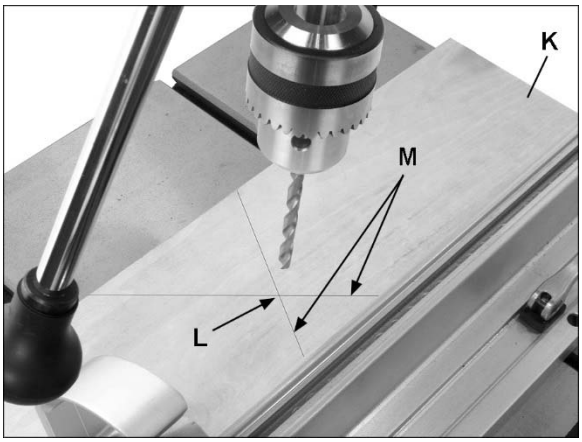


Figure 24

9.0 Operating controls

Power Indicator Light – The *start switch* has a power indicator lamp which is *on* ***whenever there is power connected*** to the Drill Press, not just when the Drill Press is running.

Do not assume that no light means there is no power to the machine. If the bulb is bad, there will be no indication. Always check before use.

⚠WARNING Do not rely that no light means no power to the machine. Always check for power first. Failure to comply may cause serious injury.

Referring to Figure 25:

Start – Pull out on the large red switch.

Stop – Push in the red switch.

Reset – If the Drill Press should stop without the stop button being pressed, as the result of a tripped fuse or circuit breaker, etc., push the red switch back in to reset it.

Safety - The switch has a safety feature that prevents unauthorized or accidental starting of the drill press. With switch in "off" position, slide out the safety key (A, Figure 25). This piece must be re-inserted before the drill press can operate.

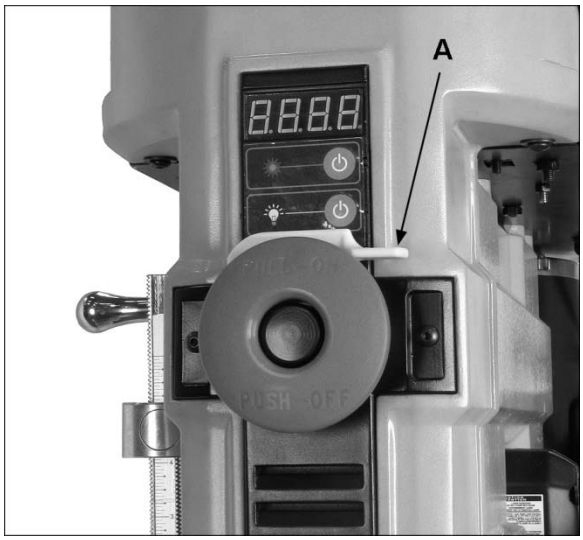


Figure 25

10.0 **Operation**

10.1 **Installing bits**

Insert bit (not provided) into chuck jaws with about 1" insertion. When using a small bit, do not insert it so far that the jaws touch the flutes of the bit. Make sure bit is centered in chuck before tightening chuck. Insert chuck key into hole in side of chuck, and turn key clockwise to tighten bit in chuck.

10.2 **Positioning work piece**

⚠WARNING Whenever possible, use clamps or work hold-downs to secure the work piece to the table.

Always secure the work piece to prevent it being torn from the operator's hand. Using the column as a work stop is not recommended; instead, use holding devices such as clamps. When using the table in tilted position, make sure the table is securely tightened and the work piece is clamped sufficiently.

For clean, splinter-free holes, place a piece of scrap wood on the table below the work piece.

Perform operations with a minimum extension of the quill. Adjust table position rather than using excessive quill travel.

Feed bit into the material with only enough force to allow the bit to work. Feeding too slowly may cause burning of the work piece. Feeding too quickly may cause the motor to slow and/or the bit to break.

10.3 **General Inspection**

Before each operation of your Model 2800B drill press, make a habit of checking that all locking handles, set screws, bolts, etc., are tight on the table and head. Confirm that drill bit is securely inserted inside chuck jaws.

Clear all items, such as tools and rags, away from machine.

Before attempting regular work, get the feel of the drill press by practicing on scrap material. For best results, always use sharp bits and proper feed rates.

10.4 **Setting rotation speed**

There are several factors which determine the best speed to use in any drill press operation, such as kind of material being worked, size of hole, type of drill, and quality of cut desired.

A general rule of thumb is, the smaller the drill, the greater the required RPMs. And the speed should be faster for soft materials and slower for harder materials.

11.0 **Maintenance**

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

After each use, clean sawdust from the table with a brush (do not use your hands).

Periodically apply a light film of oil to the quill and column. This will reduce wear, prevent rust and assure ease of operation.

It is good maintenance practice to periodically clean the pulleys with a *non-penetrating* lubricant, such as WD-40®, wipe off any excess, then apply a light oil to the pulley shafts. **NOTE:** Do not use graphite- or silicone-based lubricants.

Apply grease to the rack on the column.

Check that bolts are tight and electrical cords are in good condition.

Belts should be in good condition with no signs of cracks, frays or deterioration.

Bearings on the drill press are self-contained and permanently lubricated; no further lubrication is needed.

Exposed metal surfaces of table and base should be kept clean and free of rust. Protective sprays or paste wax are available from most hardware stores. Note: Avoid wax that contains silicone or other synthetic ingredients; these materials can

find their way into lumber and make staining and finishing difficult.

The quill return spring should receive SAE 20 oil once yearly. Apply the oil beneath the coil spring cover (L, Figure 20) using a squirt can.

11.1 Belt replacement

Referring to Figures 26 and 27:

If future replacement of belts is needed, proceed as follows:

⚠WARNING This procedure requires operating machine with pulley cover removed. Keep hands away from moving belts and pulleys.

1. Remove pulley cover using a long shaft screwdriver.
2. Turn on drill press and increase speed (rotate handwheel clockwise) to maximum, to bring center pulley as far toward spindle pulley as possible.
3. Shut off drill press and **disconnect from power**.
4. Firmly squeeze center section of upper belt to slacken tension. See Figure 26. If needed, pull on belt away from center pulley to further slacken.



Figure 26

5. Remove upper belt from around pulleys.
6. Reconnect to power, turn on drill press and rotate handwheel counterclockwise until center pulley is as close to motor pulley as possible. See Figure 27.

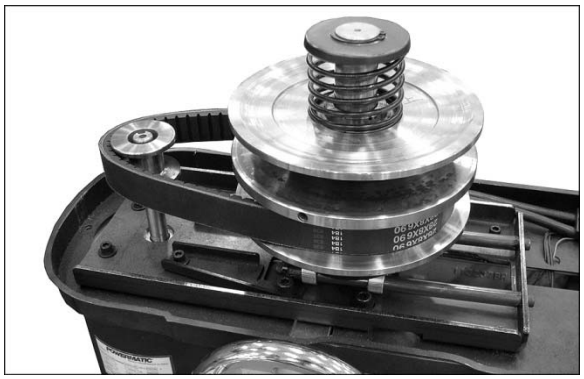


Figure 27

7. Shut off drill press and **disconnect from power**.
8. Remove lower belt in same manner as upper belt.
9. Use reverse procedure to install new belts.

11.2 Lamp replacement

Referring to Figure 28:

1. To replace a lamp, use a thumbnail or flat blade screwdriver to gently pry down the lamp assembly (A) until it releases from the seat, as shown.
2. Unscrew front plate (B) from head, pull out the plate, and disconnect the lamp wires from the electrical board. Remove old lamp assembly.
3. Install new lamp assembly and push it firmly into the seat. Connect the wires and reinstall front plate.



Figure 28

12.0 **Troubleshooting the PM2800B Drill Press**

Table 2

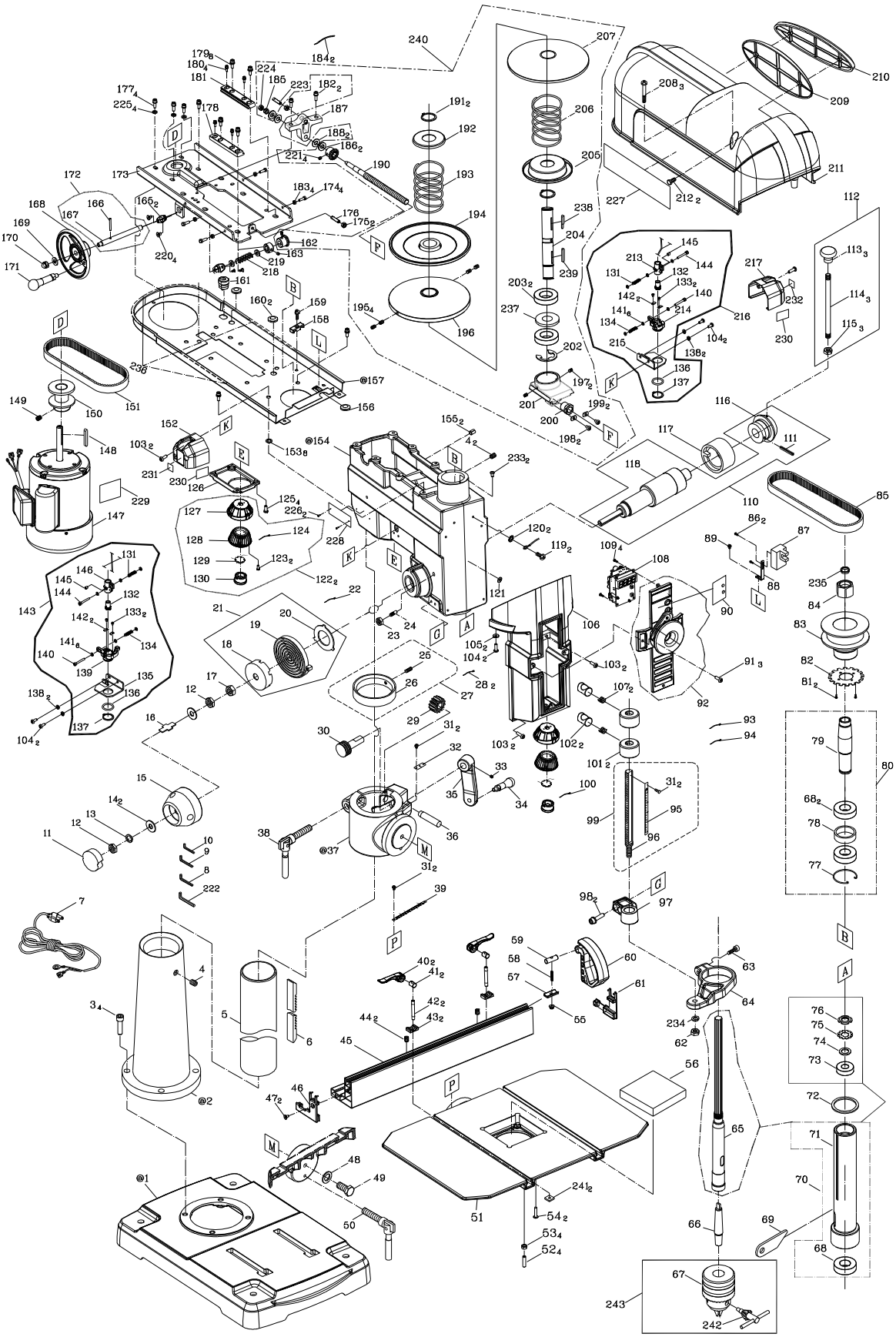
Trouble	Probable Cause	Remedy
Drill press will not start (power light is OFF).	Not connected to power.	Check all plug connections.
	Fuse blown, or circuit breaker tripped.	Replace fuse, or reset circuit breaker.
	Cord damaged.	Replace cord.
Drill press will not start (power light is ON).	Safety key removed.	Install safety key.
	Switch malfunction.	Have switch tested and replaced if needed.
Drill press 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.
	Motor or spindle pulley out of balance.	Contact Walter Meier technical service.
	Motor malfunction.	Have motor tested by a qualified service center. Repair or replace as necessary.
Motor stalls.	Overfeeding the bit.	Reduce feed rate.
	Dull bit.	Sharpen or replace bit.
	Motor not reaching running speed.	Repair or replace motor.
	Motor malfunction.	Have motor tested by a qualified service center. Repair or replace as necessary.
Noisy Operation.	Excessive vibration.	Tighten any loose parts. Drill press should sit evenly on level floor. Secure drill press to floor or plywood base.
	Dry spindle.	Lubricate spindle.
	Loose pulleys.	Make any needed corrections.
	Noisy motor.	Check motor bearings or for loose motor fan.
Wood splinters on underside of work piece.	No backing board used.	Place scrap board beneath work piece to prevent splintering.
Drill or tool heats up or burns work piece.	Excessive speed.	Reduce speed.
	Chips not clearing from hole or bit.	Retract drill bit frequently to remove chips.
	Dull drill bit.	Resharpen, or replace drill bit.
	Feeding bit too slowly.	Increase feed rate.
Drill bit wanders.	Bit sharpened incorrectly.	Resharpen bit correctly.
	Bent drill bit.	Replace bit.
	Bit or chuck not installed properly.	Reinstall chuck or bit.
Drill bit binds in work piece.	Work piece pinching the bit.	Support or clamp work piece.
	Excessive feed rate.	Decrease feed rate.
	Chuck jaws not tight.	Tighten chuck jaws.

13.0 **Replacement Parts**

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

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from Powermatic. Some parts are shown for reference only, and may not be available individually.

13.1.1 **Exploded View for PM2800B**



13.1.2 **Part List for PM2800B**

Index No.	Part No.	Description	Size	Qty.
1	PM2800B-001	Base		1
2	PM2800-075	Column Holder		1
3	TS-1505061	Hex Socket Head Cap Screw	M10x40	4
4	TS-1525021	Socket Set Screw	M10x12	3
5	PM2800B-005	Column		1
6	PM2800B-006	Rack		1
7	PM2800-180	Power Cord	14AWGx3C	1
8	TS-152707	Hex Wrench	6mm	1
9	TS-152706	Hex Wrench	5mm	1
10	TS-152704	Hex Wrench	3mm	1
11	PM2800-052	Cover		1
12	TS-0561052	Hex Nut	1/2”-20 UNF	2
13	TS-0720111	Lock Washer	1/2"	1
14	TS-2360121	Flat Washer	M12	2
15	PM2800B-015	Hub		1
16	PM2800-045	Key		1
17	TS-0561052	Hex Nut	1/2"-20 UNF	1
18	PM2800B-018	Spring Cap		1
19	PM2800B-019	Coil Spring		1
20	PM2800B-020	Spring Retainer		1
21	PM2800B-021	Coil Spring Assembly *(index #18,19,20)*		1
22	PM2800B-022	Lead Wire Assembly, *circuit board to rear light (jumper)…*	25”L	1
23	TS-1540071	Hex Nut	M10	1
24	PM2800B-024	Quill Set Screw		1
25	TS-1523021	Hex Socket Set Screw	M6x8	1
26	PM2800-057	Rack Ring		1
27	PM2800-055	Rack Ring Assembly		1
28	PM2800B-028	Lead Wire Assembly, *circuit board to laser*	27”L	2
29	PM2800-060	Gear		1
30	PM2800-061	Worm		1
31	PM2800-037	Drive Screw	Ø2.3-5 mm	6
32	PM2800-063	Centering Scale		1
33	TS-1523031	Hex Socket Set Screw	M6x10	1
34	PM2800B-034	Crank Arm Handle		1
35	PM2800B-035	Crank Arm		1
36	PM2800B-036	Gear Shaft		1
37	PM2800B-037	Table Bracket		1
38	PM2800B-038	Column Lock Handle		1
39	PM2800-067	Tilt Angle Scale		1
40	PM2800B-040	Cam Handle		2
41	PM2800B-041	Center Shaft		2
42	PM2800B-042	Plunge Pin		2
43	PM2800B-043	Cam Plate		2
44	TS-1524041	Slotted Set Screw	M8x16	2
45	PM2800B-045	Fence		1
46	PM2800B-046	Left Fence Cap		1
47	PM2800B-047	Phillips C’sunk Hd. Tapping Screw	M5x12	2
48	TS-155010	Flat Washer	Ø16mm	1
49	TS-0044091	Hex Cap Screw	3/8-16 x 3-1/2”	1
50	PM2800B-050	Clamp Handle		1
51	PM2800B-051	Table		1
52	TS-1523071	Hex Socket Set Screw	M6x25	4
53	TS-1540041	Hex Nut	M6	4
54	PM2800B-054	Phillips Truss Hd. Tapping Screw	M4-16x25	2
55	PM2800B-055A	Flanged Lock Nut	M6-1.0 T=3	3
56	PM2800B-056	Table Insert		1
57	PM2800B-057	Cam Plate		1
58	TS-1523081	Hex Socket Set Screw	M6x30	1
59	PM2800B-059	Center Shaft		1
60	PM2800B-060	Work Stop		1
	PM2800B-WSA	Work Stop Assembly *(index # 55,57-60)*		1
61	PM2800B-061	Right Fence Cap		1
62	TS-1540071	Hex Nut	M10	1

Index No.	Part No.	Description	Size	Qty.
63	TS-1504051	Hex Socket Hd. Cap Screw	M8x25	1
64	PM2800B-064	Collar		1
65	PM2800B-065	Spindle		1
66	PM2800-140	Arbor	MT2xJT3	1
67	JDP17-092	Keyed Chuck	RJ-16L	1
68	BB-6205LLU	Ball Bearing	6205LLU	3
69	PM2800-136	Drift Key		1
70	PM2800B-070	Spindle Assembly *(index #68,71,73-76)*		1
71	PM2800B-071	Quill		1
72	PM2800-134	Rubber Washer		1
73	BB-6203LLU	Ball Bearing	6203LLU	1
74	PM2800-132	Washer		1
75	PM2800-131	Nut Lock		1
76	PM2800-130	Spindle Nut		1
77	PM2800-155	Retaining Ring		1
78	PM2800B-078	Collar		1
79	PM2800B-079	Drive Sleeve		1
80	PM2800B-080	Drive Sleeve Assembly *(index #68,77-79)*		1
81	TS-2171012	Phillips Pan Hd. Machine Screw	M4x6	2
82	PM2800B-082	Speed Plate		1
83	PM2800B-083	Spindle Pulley		1
84	PM2800B-084	Pulley Set Nut		1
85	PM2800B-085	Variable Speed Belt	28x8x790	1
86	PM2800-100	Truss Head Tapping Screw	M3x8	2
87	PM2800-116	Photo Interrupt Module		1
88	PM2800B-088	Bracket		1
89	628494	Phillips Pan Hd. Machine Screw	M5x6	1
90	PM2800B-090	Switch Label		1
91	PM2800B-091	Hex Socket Truss Hd. Screw	M5-0.8x16	3
92	PM2800B-092	Push-Pull Type Switch Assembly		1
92-1	PM2800-103-1	Switch Safety Key		1
93	PM2800-099	Lead Wire Assembly, *on/off switch to circuit board*	white	1
94	PM2800-102	Lead Wire Assembly, *on/off switch to circuit board*	black	1
95	PM2800B-095	Depth Scale		1
96	PM2800B-096	Stop Bolt		1
97	PM2800B-097	Plunge Housing		1
98	TS-1503091	Hex Socket Hd. Cap Screw	M6x40	2
99	PM2800B-099	Depth Stop Bolt and Scale Assembly		1
100	PM2800B-100	Lead Wire Assembly, *circuit board to front light (jumper)*	4”L	1
	PM2800B-SNA	Stop Nut Assembly (includes #101,102,107)		1
101	PM2800B-101	Stop Nut		2
102	PM2800B-102	Adjusting Nut		2
103	PM2800B-103	Hex Socket Truss Hd. Screw	M5-0.8x25	6
104	PM2800B-104	Hex Socket Truss Hd. Screw	M5-0.8x12	6
105	TS-1550031	Flat Washer	Ø5mm	2
106	PM2800B-106	Switch Box		1
107	PM2800B-107	Spring		2
108	PM2800B-108	Controller Assembly		1
109	PM2800B-109	Phillips Pan Hd. Tapping Screw	M3-24x6	4
110	PM2800B-110	Feed Shaft Assembly		1
111	PM2800-113	Spring Pin	Ø5x16mm	1
112	PM2800-164	Handle Assembly *(index #113-115)*		1
113	PM2800-163	Handle Grip		3
114	PM2800-162	Handle		3
115	TS-1540081	Hex Nut	M12	3
116	PM2800B-116	Hub		1
117	PM2800B-117	Ring		1
118	PM2800B-118	Feed Shaft		1
119	6290832	Phillips Pan Hd. Machine Screw	M5x8	2
120	PM2800-097	External Tooth Lock Washer	M5	2
121	PM2800-096	Grounding Sticker		1
122	PM2800B-122	Lamp Assembly		2
123	TS-2283102	Phillips Pan Hd. Machine Screw	M3x10	4
124	PM2800B-124	Lead Wire Assembly, *circuit board to rear light (jumper)*	6”L	2
125	TS-1533042	Phillips Pan Hd. Machine Screw	M5x12	4

Index No.	Part No.	Description	Size	Qty.
126	PM2800B-126	Rubber Cap		1
127	PM2800B-127	LED Seat		2
128	PM2800B-128	Heat Sink		2
129	PM2800B-129	LED Assembly		2
130	PM2800B-130	Lens Assembly		2
131	PM2800B-131	Spring		2
132	PM2800B-132	Laser Module		2
133	PM2800B-109	Phillips Pan Hd. Tapping Screw	M3-24x6	4
134	PM2800B-134	Spring		2
135	PM2800B-135	Laser Plunge Bracket (Left)		1
136	PM2800B-136	O-Ring	AS-120	2
137	PM2800-154	C-Ring	A-25	2
138	TS-2361051	Lock Washer	M5	4
139	PM2800B-139	Laser Plunge Housing (Left)		1
140	TS-1501081	Hex Socket Hd. Cap Screw	M4x30	2
141	TS-1550021	Flat Washer	Ø4mm	12
142	PM2800B-142	Pad		4
143	PM2800B-143	Laser Assembly (Left) *(index #131-137,139-146)*		1
144	TS-1501081	Hex Socket Hd. Cap Screw	M4x30	2
145	TS-1523011	Slotted Set Screw	M6x6	2
146	PM2800B-146	Laser Axle Seat (Left)		1
147	PM2800B-147	Motor Assembly	1HP, 115/230V, 1Ph	1
	PM2800B-147MF	Motor Fan (not shown)		1
	PM2800B-147MFC	Motor Fan Cover		1
	PM2800B-147SC	Starting Capacitor	300µF, 250VAC	1
	PM2800B-147CC	Capacitor Cover		1
	PM2800B-147CS	Centrifugal Switch (not shown)		1
	PM2800B-147JB	Junction Box		1
	PM2800B-147JBC	Junction Box Cover		1
148	PM2800B-148	Parallel Key	6x6x30	1
149	TS-1523031	Hex Socket Set Screw	M6x10	1
150	PM2800B-150B	Motor Pulley *(s/n 13110333 and higher)*		1
151	PM2800B-151	Variable Speed Belt	28*8*680	1
152	PM2800B-152	Guard		1
153	PM2800B-153	Flat Washer	Ø8.5*22-3	8
154	PM2800B-154A	Head Casting *(s/n 1308001 and higher)*		1
155	PM2800B-155	Spring Pin	6.0x30	2
156	PM2800B-156	Strain Relief	Ø20mm	1
157	PM2800B-157A	Lower Pulley Cover *(s/n 1308001 and higher)*		1
158	PM2800-007	Cord Clamp		1
159	TS-1533052	Phillips Pan Hd. Machine Screw	M5x16	1
160	PM2800B-160	Strain Relief	Ø11	2
161	PM2800B-161	Strain Relief	RA-1418	1
162	PM2800B-162	Bevel Gear		2
163	TS-1523011	Hex Socket Set Screw	M6x6	2
164	PM2800B-164	Collar		1
165	PM2800B-165	Plate		2
166	992313	Spring Pin	3x30mm	1
167	PM2800B-167	Speed Adjustment Shaft		1
168	PM2800B-168	Handwheel		1
169	TS-0680031	Flat Washer	5/16"	1
170	PM2800B-170	Crown Nut		1
171	PM2800B-171	Handle		1
172	PM2800B-172	Speed Adjustment Shaft Assembly *(index #166,167)*		1
173	PM2800B-173A	Retaining Plate *(s/n 1308001 and higher)*		1
174	TS-1503051	Hex Socket Head Cap Screw	M6x20	2
175	TS-2311061	Hex Nut	M6	2
176	TS-1523081	Socket Set Screw	M6x30	1
177	TS-1503061	Hex Socket Head Cap Screw	M6x25	4
178	PM2800B-178A	Left Brace Block *(s/n 1308001 and higher)*		1
179	TS-1504051	Hex Socket Head Cap Screw	M8x25	8
180	TS-1503041	Hex Socket Head Cap Screw	M6x16	4
181	PM2800B-181A	Right Brace Block *(s/n 1308001 and higher)*		1
182	TS-1514021	Hex Socket Flat Head Screw	M6x25	2

Index No.	Part No.	Description	Size	Qty.
183	TS-2311061	Hex Nut	M6	4
184	PM2800B-184	Locking Cable Tie		2
185	PM2800B-185	Nut	M6	1
186	TS-1550041	Flat Washer	Ø6mm	2
187	PM2800B-187A	Slide Block *(s/n 1308001 and higher)*		1
188	PM2800B-188	Washer		2
189	TS-1503041	Hex Socket Hd. Cap Screw	M6x16	2
190	PM2800B-190	Lead Screw		1
191	PM2800-022	C-Ring	A-30	2
192	PM2800B-192	Spring Cap		1
193	PM2800B-193	Compression Spring		1
194	PM2800B-194B	Upper Center Pulley *(s/n 13110333 and higher)*		1
195	TS-1523031	Hex Socket Set Screw	M6x10	4
196	PM2800B-196	Center Pulley		1
197	TS-1523011	Socket Set Screw	M6x6	6
198	PM2800B-198	Hex Socket Truss Hd. Screw	M5-0.8x8	2
199	PM2800B-199	Flat Washer		2
200	PM2800B-200	Special Nut		1
201	PM2800B-201A	Center Shaft Seat		1
202	PM2800B-202	E-Ring	E-24	1
203	BB-6028LLU	Ball Bearing	6028LLU	2
204	PM2800B-204B	Center Shaft *(s/n 13110333 and higher)*		1
205	PM2800B-205	Spring Cap		1
206	PM2800B-206	Compression Spring		1
207	PM2800B-207B	Lower Center Pulley *(s/n 13110333 and higher)*		1
208	PM2800B-208A	Phillips Pan Hd. Machine Screw	M6x100	3
209	PM2800B-209	Name Plate Seat		1
210	PM2800-176	Powermatic Name Plate		1
211	PM2800B-211	Pulley Cover		1
212	TS-0050021	Hex Cap Screw	1/4x5/8"	2
213	PM2800B-213	Laser Axle Seat (Right)		1
214	PM2800B-214	Laser Plunge Housing (Right)		1
215	PM2800B-215	Laser Plunge Bracket (Right)		1
216	PM2800B-216	Laser Assembly (Right)		1
217	PM2800B-217	Guard		1
218	PM2800B-218	Spring		1
219	TS-1550071	Flat Washer	Ø10mm	2
220	TS-2284081	Phillips Flat Hd. Screw	M4x8	4
221	TS-1523021	Hex Socket Set Screw	M6x8	4
222	TS-227D081	Hex Wrench	8mm	1
223	TS-1523081	Hex Socket Set Screw	M6x30	1
224	TS-2311061	Hex Nut	M6	1
225	TS-1550041	Flat Washer	Ø6mm	4
226	PM2800-037	Drive Screw	Ø2.3-5mm	2
227	PM2800B-227	Caution Label		1
228	PM2800B-228	I.D. Label		1
229	PM2800B-229	Motor Label		1
230	PM2800B-230	Warning Label – Laser		2
231	PM2800B-231	Label – Laser Adjustment (Left)		1
232	PM2800B-232	Label – Laser Adjustment (Right)		1
233	6290832	Pan Head Machine Screw	M5x8	2
234	TS-2361101	Spring Washer	M10	1
235	PM2800B-235	Rubber Sleeve *(s/n 1308001 and higher)*		1
236	PM2800B-236	U Shape Protecting Rubber *(s/n 1308001 and higher)*		1
237	PM2800B-237	Collar *(s/n 1308001 and higher)*		1
238	PM2800B-238B	Special Key	5x5x35 mm	1
239	PM2800-239	Parallel Key	5x35 T=4.5 mm	1
240	PM2800B-240	Center Spindle Assembly (includes #162, 185~187, 190~207, 221, 223, 224, 237~239)		1
241	PM2800B-241	Rectangular Nut		2
242	JDP17-091	Chuck Key	T4	1
243	JDP17-211	Chuck Assembly (#67 and #242)		1

14.0 **Electrical Connections for PM2800B Drill Press**

115V **230V**

