# **POVERMATIC**®

# Operating Instructions and Parts Manual Mobile Cyclone Dust Collector Model PM2200HK



### **Powermatic**

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

Document No. M-1792200B

Edition 6 06/2021
Copyright © 2017 Powermatic



# 1.0 IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS DUST COLLECTOR.

# WARNING – To reduce the risk of fire, electric shock, or injury:

- 1. Read and understand entire owner's manual before attempting assembly or operation.
- 2. Read and understand the warnings posted on the machine and in this manual.
- Replace warning labels if they become obscured or removed.
- 4. This dust collector 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 dust collector, do not use until proper training and knowledge have been obtained.
- Do not use this dust collector 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 protective eye wear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specifications. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection. (Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.)
- 7. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
- Wear hearing protection (plugs or muffs) if noise exceeds safe levels.
- Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
- Make certain the switch is in the OFF position before connecting the machine to the power supply. Turn off all controls before unplugging.
- Make certain the machine is properly grounded. Connect to a properly grounded outlet only. See Grounding Instructions.

- Make all machine adjustments or maintenance with the machine unplugged from the power source.
- 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 maintenance is complete.
- 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.
- The dust collector is intended for indoor use. To reduce the risk of electric shock, do not use outdoors or on wet surfaces.
- 22. Do not use this dust collector for anything except wood dust. Materials such as liquids, metal shavings, metal dust, screws, glass, plastic or rock can cause sparks and/or damage when coming into contact with any part of the dust collector.
- Do not use to pick up anything that is burning or smoking, such as cigarettes, matches or hot ashes.
- 24. Do not use to pick up flammable or combustible liquids such as gasoline, or use in areas where they may be present.
- 25. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run dust collector over cord. Keep cord away from heated surfaces.

- 26. Do not use this dust collector with a damaged cord or plug. If the unit is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
- 27. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- 28. Do not use without dust bag and/or filters in place.
- 29. Do not handle plug or machine with wet hands.
- Do not put any objects into the openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- 31. Do not operate without hose connected to the inlet. Place cap on unused inlet port. Hazardous moving parts inside. Unplug before removing or connecting inlet or inlet guard.
- 32. Use recommended accessories; improper accessories may be hazardous.
- 33. Maintain tools with care. Follow instructions for lubricating and changing accessories.
- 34. Turn off machine and disconnect from power before cleaning. Use a brush or compressed air to remove chips or debris; do not use bare hands.
- 35. Do not leave the machine when it is plugged in. Unplug from outlet when not in use and before servicing.
- 36. Do not stand on the machine. Serious injury could occur if the machine tips over.

- 37. Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, 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. Sect. 6.2, Table 2 shows correct size to use depending upon cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- 38. The dust collector is intended for household use.

▲ 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:

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

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

## **SAVE THESE INSTRUCTIONS**

## 2.0 Table of contents

Section	Page
1.0 IMPORTANT SAFETY INSTRUCTIONS	2
2.0 Table of contents	4
3.0 About this manual	4
4.0 Specifications for PM2200 Cyclone Dust Collector	5
5.0 Setup and assembly	
5.1 Unpacking	7
5.2 Shipping contents	7
5.3 Tools required for assembly	8
5.4 Assembly	8
6.0 Electrical connections	
6.1 GROUNDING INSTRUCTIONS	10
6.2 Extension cords	11
7.0 Operations	11
7.1 Start/stop	
7.2 Safety Key	11
7.3 Remote controller	
7.4 Dust hose connection	
7.5 Filter auto clean	
8.0 User-maintenance	
8.1 Thermal overload reset	
8.2 Cleaning and bag inspection	
8.3 Motor inspection	
8.4 Additional servicing	
9.0 Consumable parts replacement	
10.0 Troubleshooting PM2200 Cyclone Dust Collector	
10.1 Electrical and motor problems	
10.2 Performance problems	15
11.0 Replacement Parts	
11.1.1 PM2200 Cyclone Dust Collector – Exploded View	
11.1.2 PM2200 Cyclone Dust Collector – Parts List	
12.0 Electrical Connections for PM2200 Cyclone DC	
13.0 Warranty and service	20

## 3.0 About this manual

This manual is provided by Powermatic, covering the safe operation and maintenance procedures for a Powermatic Model PM2200HK Cyclone Dust Collector. 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 dust removal strategies, installation of shop duct work, or the use of optional dust collection accessories. 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 about this product, please contact your local supplier or Powermatic. Powermatic can also be reached at our web site: www.powermatic.com.

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

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

# 4.0 Specifications for PM2200HK Cyclone Dust Collector

Table 1

Model number	PM2200HK	
Stock number	1792200HK	
Motor and electrical		
Motor type	totally enclosed fan cooled, induction, capacitor start	
Horsepower	3HP (2.2kW)	
Phase	Single	
Voltage	230 V	
Cycle	60 Hz	
Listed FLA (full load amps)	16 A	
Starting amps	65 A	
Running amps (no load)	6 A	
Start capacitor	250MFD 250VAC	
Run capacitor	35μF 400VAC	
On/off switch	Magnetic contactor with overload protection	
Motor speed	3450 RPM	
Power cord	12AWG x 3C, SJT, 6 ft.	
Power plug included	6-20P	
Recommended circuit size <sup>1</sup>	20 A	
Sound emission <sup>2</sup>	78 dB at 9.84 ft (3m)	
Remote control system	Radio frequency (FCC approved); range up to 50 ft. (15m)	
RC transmitter battery	2 x AA, 1.5V	
Timer setting	2,4,6,8 hours	
Capacities		
Inlet diameter	8 in. (203 mm)	
Inlet adaptors, number of	3	
Inlet adaptors, diameter of	4 in. (100 mm)	
Air Flow <sup>3</sup>	1543 CFM (40.8 m <sup>3</sup> /min)	
All I low	1543 CFM (40.8 m <sup>3</sup> /min)	
Air Velocity <sup>3</sup>	4380 FPM (22.4 m/s)	
	· · · · · · · · · · · · · · · · · · ·	
Air Velocity <sup>3</sup>	4380 FPM (22.4 m/s)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup>	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup>	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O) 15.8 in. (403 mm)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga.	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm) 31-3/8 in. (1000 mm)	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length Filter surface area	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm) 31-3/8 in. (1000 mm) 46.82 sq. ft. (4.35 m <sup>2</sup> )	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length Filter surface area HEPA Filter efficiency rating	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm) 31-3/8 in. (1000 mm) 46.82 sq. ft. (4.35 m <sup>2</sup> ) 100% of 2 micron particles	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length Filter surface area HEPA Filter efficiency rating Cleaning system	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm) 31-3/8 in. (1000 mm) 46.82 sq. ft. (4.35 m <sup>2</sup> ) 100% of 2 micron particles	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length Filter surface area HEPA Filter efficiency rating Cleaning system Collection bags	4380 FPM (22.4 m/s)  2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O)  14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm)  14 ga. radial fin steel  cartridge and spunbond polyester  14-9/16 in. (370 mm)  31-3/8 in. (1000 mm)  46.82 sq. ft. (4.35 m <sup>2</sup> )  100% of 2 micron particles, 100% of 1 micron particles Automatic when stop button is pushed	
Air Velocity <sup>3</sup> Static pressure loss (WC) <sup>3</sup> Maximum static pressure loss (WC) <sup>3</sup> Impeller Diameter Fin thickness Type Material Canister filter Filter type Canister filter diameter Canister filter length Filter surface area HEPA Filter efficiency rating Cleaning system Collection bags Bag material	4380 FPM (22.4 m/s) 2.24 inH <sub>2</sub> O (57 mmH <sub>2</sub> O) 14.30 inH <sub>2</sub> O (363 mmH <sub>2</sub> O)  15.8 in. (403 mm) 14 ga. radial fin steel  cartridge and spunbond polyester 14-9/16 in. (370 mm) 31-3/8 in. (1000 mm) 46.82 sq. ft. (4.35 m <sup>2</sup> ) 100% of 2 micron particles, 100% of 1 micron particles Automatic when stop button is pushed	

	PM2200	
Collection drum		
Capacity	63 gal. (75.7 L)	
Diameter	24-1/2 in. (622 mm)	
Height	32-1/2 in. (825 mm)	
Material	steel	
Main materials		
Frame	steel tubing, sheet metal	
Body/housing	sheet metal	
Paint finish	powder coat	
Dimensions		
Footprint/base dimensions (LxW)	54-1/2 x 31-7/8 (1385 x 810 mm)	
Overall dimensions, assembled (LxWxH)	54-1/2 x 31-7/8 x 85-1/4 in. (1385 x 810 x 2165 mm)	
Shipping dimensions (LxWxH)	64 x 30 x 52.5 in. (1635 x 770 x 1335 mm)	
Weights		
Net weight, full kit assembled	370 lbs. (168 kg)	
Shipping weight	425.5 lbs. (193 kg)	

<sup>&</sup>lt;sup>1</sup> Subject to local/national electrical codes. Recommendation based upon dedicated circuit.

L = length, W = width, H = height

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

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

<sup>&</sup>lt;sup>3</sup> Test condition: 8-in. inlet with standard canister filter installed.

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

## 5.0 Setup and assembly

## 5.1 Unpacking

Remove all items from the pallet and inspect for damage. If any is discovered, contact your distributor. NOTE: Remove 2 screws holding the drum to the pallet. There may be additional fasteners securing items to the pallet.

Remove all items from their separate boxes/packages and compare to the contents list in this manual. If any part shortages are identified, contact your distributor. Do not discard boxes or packing material until dust collector is assembled and running satisfactorily.

The letter designations below are used throughout the assembly instructions.

## 5.2 Shipping contents

(Figure 5-1)

- 1 Main housing with filter A
- 1 Base B
- 1 Upper drum C
- 1 Lower drum D
- 1 Drum lid E
- 1 Inlet adaptor F
- 1 Support frame G
- 1 Right stand panel H
- 1 Left stand panel I
- 1 Hose J
- 2 Hose 2in. K
- 2 Hose clamps L
- 1 Cone clamp M
- 1 Canister bag clamp N
- 1 Drum handle O
- 1 Reducing cone P
- 1 Quick lever Q
- 2 Fixed casters Ø3 x 1-1/4 R
- 2 Swivel casters Ø3 x 1-1/4 S
- 4 Drum casters T
- 1 PE bag, large (for drum) U
- 1 Drum clamp V
- 1 Roll foam tape, 3/4x50L (20x1265mm) FT3/4
- 2 Rolls foam tape, 1x38L in. (30x970mm) FT138
- 2 Quick connectors A1
- 4 Hose clamps 2" dia. B1
- 1 PE bag, small (for canister) C1
- 1 Remote control (with 2 AA batteries) RC
- 4 Angle supports E1
- 1 Roll foam tape, 1x25L in. (30x640mm) FT125

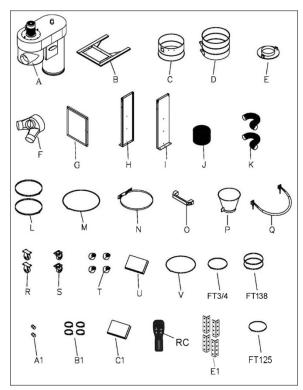


Figure 5-1: contents (not to scale)

## Hardware package, #PM2200-HP-1

(Figure 5-2)

- 16 Hex flange head screws, 5/16x1/2 HP1
- 55 Button head screws, 5/16x3/4 HP2
- 55 Flat washers, M8 HP3
- 2 Phillips pan head screws, 1/4x1/2 HP4
- 8 Button head screws, M5x10 HP5
- 1 Open end wrench, 10/12mm HP6
- 2 Hex keys, 4mm and 5mm HP7

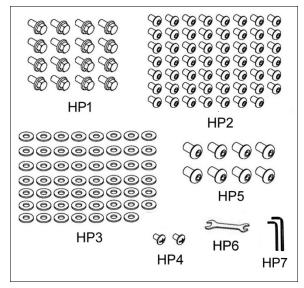


Figure 5-2: **#PM2200-HP-1** hardware package contents (not to scale)

## 5.3 Tools required for assembly

12mm wrench (provided) 4mm, 5mm hex keys (provided) Cross-point (Phillips) screwdriver

Note: A ratcheting socket wrench, and hand drill with cross-point bit, will speed assembly time.

Approximate assembly time: 2 to 3 hours

## 5.4 Assembly

**▲**WARNING Do not connect dust collector to power until it is assembled. Failure to comply may cause serious injury.

1. Turn base upside-down (on cardboard or cloth to prevent scratching) and install fixed (R) and swivel (S) casters. Note: Swivel casters mount below the platform. Tighten all screws securely, and turn base upright.

In steps 2 through 4, tighten screws only enough to secure the structure; do not fully tighten.

- Position left stand panel (I) and insert screws (HP2). Semi-tighten screws.
- 3. Install support frame (G) to left panel, and position right panel (H). Semi-tighten all screws.
- 4. Install angle supports (E1) with button head screws and washers (HP2/3). Semi-tighten. Half of angle support should protrude upward.

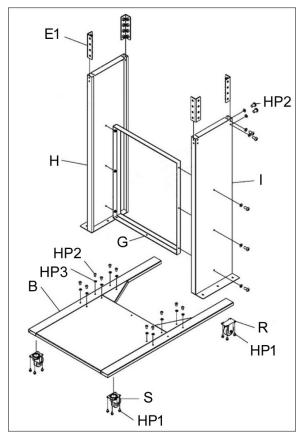


Figure 5-3

AWARNING Use hoist or forklift with hooks through the eyebolts near the motor, to raise housing assembly. Lifting equipment must be properly rated for the load.

If neither is available, use at least 4 persons to lift housing and set it upon the stand. Failure to comply may cause serious injury.

- Lower main housing (A, Figure 5-4) onto angle supports and down onto stand panels. Secure with button head screws and washers (HP2/3). Tighten all securely.
- Fully tighten all screws on stand assembly.

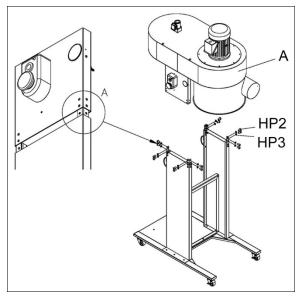


Figure 5-4

Place 2-inch hose (K) on main housing and tighten with hose clamp (B1). See Figure 5-5.

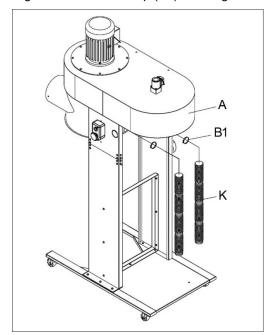


Figure 5-5 (filter not shown for clarity)

- 8. Turn cone upside down. See Figure 5-6.
- 9. Paste 1Wx38L inch foam tape (FT138) around bottom lip of cone. Trim excess.
- 10. Work the hose (J) onto the cone, and secure with clamp (P).

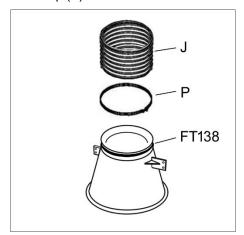


Figure 5-6

11. Assemble cone (P) to housing with clamp (M). See Figure 5-7. Position cone so that flanges face forward and are parallel to stand. Tighten screw on clamp.

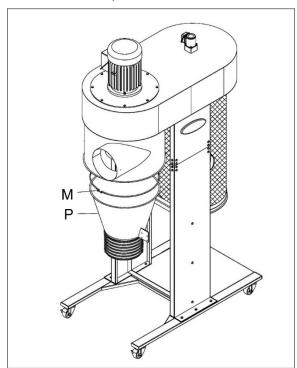


Figure 5-7

- 12. The upper drum is nested within the lower drum. Remove clamp, and lift out upper drum.
- 13. Assemble upper drum (C, Figure 5-8) to lower drum (D) and secure with drum clamp (V) by tightening screw (V<sub>1</sub>).
- 14. Install handle (O) with screws (HP4). Handle should be opposite side from lower ports.

 Turn drum over and install casters (T) into threaded holes beneath drum. Use the provided wrench to tighten.

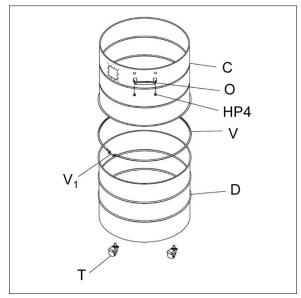


Figure 5-8

- Paste 1Wx25L inch foam tape (FT125) around the inlet port at its edge. Trim excess. See Figure 5-9.
- 17. Push inlet adaptor (F) onto housing inlet and tighten with screw.
- 18. Paste 1Wx38L inch foam tape (FT138) around flange of drum lid (E).
- 19. Roll drum beneath cone and work hose on to drum lid. Secure with hose clamp (L).
- 20. Install quick lever (Q) to flanges of cone with button head screws (HP5, see inset). Then connect bottom of handle to drum lid with hex nut on top and lock nut underneath.
- 21. Push quick connectors (A1) into the 2-inch hoses, tighten with hose clamps, and place connectors onto ports at back of drum (B1).

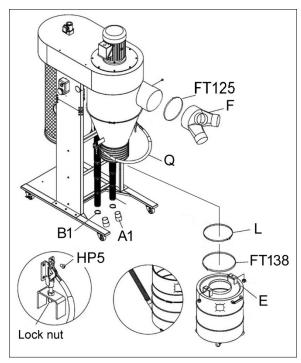


Figure 5-9

- 22. Apply 3/4Wx50L inch foam tape (FT3/4, Figure 5-10) to lower groove of canister filter, just above the lip.
- 23. Install canister collection bag (C1) beneath canister filter and secure with bag clamp (N).
- 24. The dust collector is now assembled and ready for operation.

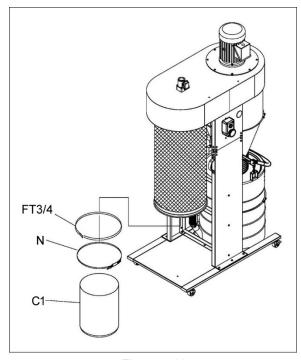


Figure 5-10

## 6.0 Electrical connections

AWARNING 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 PM2200HK Dust Collector is rated at single-phase, 230-volt power only. The dust collector comes with a plug designed for use on a circuit with a *grounded outlet* that looks like the one pictured in Figure 6-1.

Keep in mind that a circuit being used by other machines, tools, lights, heaters, etc. at the same time will add to the electrical load. A dedicated circuit to the dust collector will offer best results since dust collectors are generally used while other tools are running.

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

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

#### 6.1 GROUNDING INSTRUCTIONS

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug.

The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

AWARNING Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

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.

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.

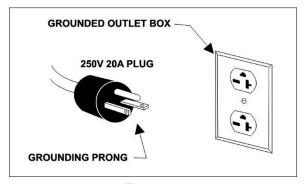


Figure 6-1

This appliance is intended for use on a circuit having a nominal rating more than 120 V and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adapter should be used with this appliance. If the appliance 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 appliance should comply with all local codes and ordinances.

#### 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 2 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	Not	240	50	100	200	300
Than	More Than		AWG			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16 16 14 12			
12	16		14	12	Not Recomn	nended

Table 2: Extension cord recommendations

## 7.0 **Operations**

## 7.1 Start/stop

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

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

Refer to Figure 7-1:

Start (A) - Press the green start switch.

When power is connected to the machine, the green light is always on regardless of whether the collector is running or not.

Stop (B) – Press the red switch to stop.

**Reset** – If the dust collector stops without pressing the stop button, as the result of a tripped fuse or circuit breaker:

- 1. Press red button (C) to reset.
- 2. Press green button (A) to restart machine.

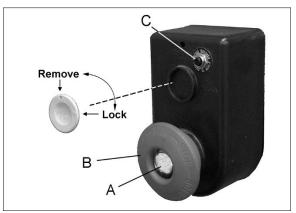


Figure 7-1

## 7.2 Safety Key

The start/stop switch comes equipped with a magnetic safety key. See Figure 7-1. When in place on the switch, the magnetic safety key trips a relay which allows the machine to start and stop when the respective switches are pressed. Being magnetic, the safety key can be removed to make the machine inoperable.

When using the machine, place the key on the switch cover lining up the arrow on the key with the REMOVE arrow on the cover. Then rotate the key so the arrow lines up with the LOCK arrow. This prevents the safety key from vibrating loose when the machine is operating.

#### 7.3 Remote controller

The RF (radio frequency) remote controller operates on 2 AAA batteries (included). The batteries will need replacing periodically. The remote controller has an effective range up to approximately 50 feet (15 meters).

Press the + or - button to select desired timer setting: 2, 4, 6 or 8 hours. The dust collector will stop automatically at end of selected period. For

continuous operation (no timer) select infinity (4) position.



Figure 7-2

### 7.3.1 Remote controller reset

If the remote controller begins to function improperly, it should be cleared and reset.

To clear the remote controller, press and hold reset button (A, Figure 7-3) for 3 seconds until receiver "beeps" 3 times.

To reset the controller:

- Press reset button for 1 second until receiver "beeps" once.
- Press and hold "ON" button on the remote controller until receiver "beeps" twice. (If you are using multiple remotes, perform step 2 on each remote before proceeding.)
- 3. Press and hold reset button (A) for 3 seconds until receiver "beeps" 3 times.

The remote controller is now ready.

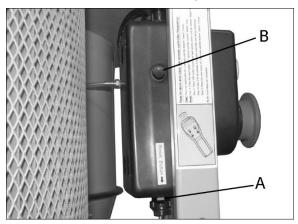


Figure 7-3

#### 7.4 Dust hose connection

Use proper type hose to connect dust collector to machine(s) being operated. *Dryer vent hose is not acceptable for this purpose*. Secure hose at both ends with proper clamps.

If an inlet port is not being used, it should remain capped. An open port will diminish the machine's efficiency, and may create a safety hazard.

Contact your nearest Powermatic distributor for a line of Dust Collector hoses and accessories. You can customize your installation and obtain maximum performance with dust hoods, hoses, clamps, fittings, and blast gates.

#### 7.5 Filter auto clean

Canister filter cleaning is automatic. When the dust collector is shut off, the cleaning baffles will rotate one direction for 5 seconds, then the opposite direction for 5 seconds.

## 8.0 User-maintenance

Turn OFF dust collector and remove plug from power source before performing any adjustments or maintenance. Failure to comply may result in serious injury.

## 8.1 Thermal overload reset

The switch box contains overload protection to help prevent damage to the motor. The relay will open the circuit (shut off dust collector) if motor is drawing excessive current during extended periods of operation.

If the overload is tripped, allow machine to cool down for several minutes. Then press breaker reset button (B, Figure 7-3) and restart dust collector.

## 8.2 Cleaning and bag inspection

Empty or replace canister and drum collection bags when full.

## 8.3 Motor inspection

Make frequent inspections of motor fan, and blow out (with low pressure air hose) or vacuum any accumulation of foreign material to maintain normal motor ventilation.

## 8.4 Additional servicing

Any other servicing should be performed by an authorized service representative.

# 9.0 Consumable parts replacement

Part no.	Description
717511	Canister Collection Bag (pkg. of 5)
717531	Drum Collection Bag (pkg. of 5)

Table 3

## 10.0 Troubleshooting PM2200HK Cyclone Dust Collector

## 10.1 Electrical and motor problems

Symptom	Possible Cause	Correction*	
Motor will not start.	No incoming current.	Check connections at plug or circuit panel.	
	Safety key missing from switch.	Install safety key.	
	Motor overheated, relay tripped.	Allow machine to cool, then press reset button and restart.	
	Low voltage.	Check power line for proper voltage.	
	Open circuit in motor or loose connection.	Inspect all connections to switch box and motor for loose or open connections.	
	Faulty start switch.	Inspect and replace switch if needed.	
	Faulty start capacitor.	Replace capacitor.	
	Faulty motor.	Inspect and replace motor if needed.	
Motor will not start: fuse blows or circuit	Too many machines on shared circuit.	Connect dust collector to dedicated circuit.	
breaker trips.	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 at power source.	
Motor overheats.	Motor overloaded.	Reduce load on motor.	
	Air circulation through motor is restricted.	Clean motor fan with compressed air to restore normal air circulation.	
Motor stalls, resulting	Motor overloaded.	Reduce load on motor.	
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 noise or	Loose fasteners.	Inspect machine and tighten all fasteners.	
vibrations coming from machine.	Motor fan is hitting the cover.	Tighten fan or shim cover. Replace fan cover if damaged.	
	Impeller is damaged.	Replace impeller.	
Remote controller fails	Stop button still engaged.	Disengage stop button.	
to activate machine.	Batteries drained.	Replace batteries.	
	Remote needs resetting.	Follow instructions for clearing and resetting.	

Table 4

<sup>\*</sup> **WARNING:** Some corrections may require a qualified electrician.

## 10.2 Performance problems

Symptom	Possible Cause	Correction	
Poor performance; lack of suction.	Hose improperly secured at dust origination point.	Inspect and remedy.	
	Inlet port is open.	Cap unused inlet ports.	
	Collection bag is full.	Empty bag (check sight window).	
	Collection drum not sealed properly.	Inspect drum for leaks, make sure lid is tight.	
	Canister filter is dirty.	Clean filter.	
	Wood has excess moisture content.	Use lumber with lower moisture content.	
	Obstruction in dust hose or inlet port.	Inspect and clear obstruction.	
	Dust hose too long.	Move collector closer to dust source and use shorter hose.	
Excess dust or large chips backing up into	Collection drum not sealed properly.	Inspect drum for leaks, make sure lid is tight.	
canister filter.	Collection bag full.	Empty bag (check sight window).	

Table 5

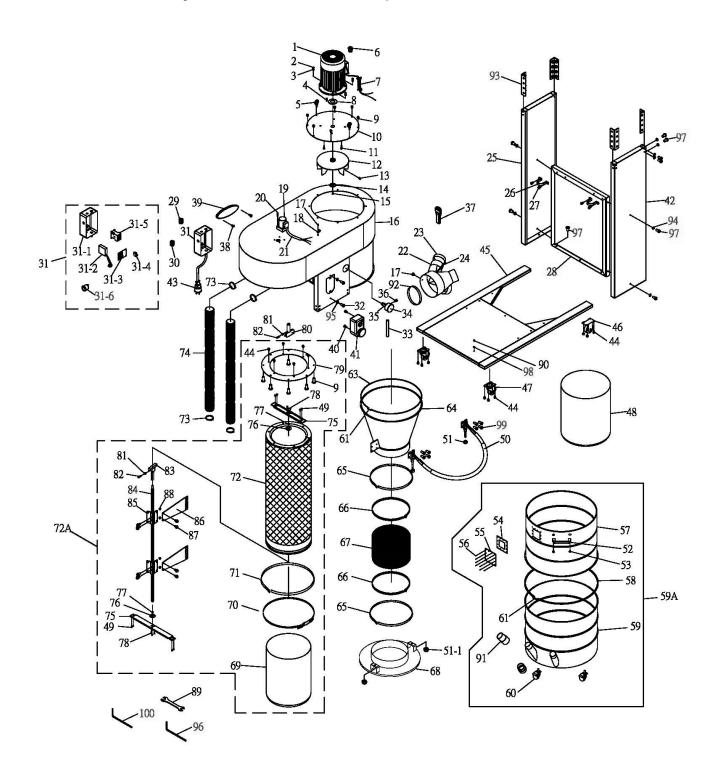
## 11.0 Replacement Parts

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.

## 11.1.1 PM2200HK Cyclone Dust Collector – Exploded View

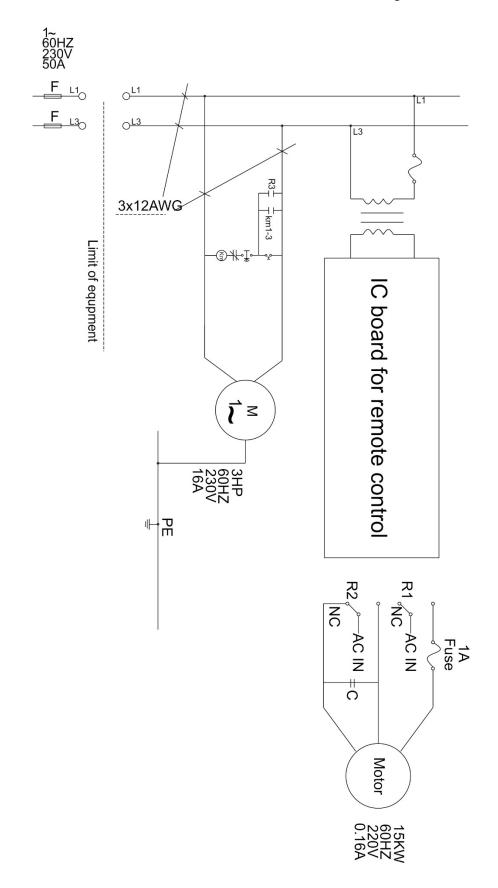


## 11.1.2 PM2200HK Cyclone Dust Collector – Parts List

Index No	Part No	Description	Size	Qty
1	PM2200-001	Motor	. 3HP, 230V	1
	PM2200-01SC	Start Capacitor (not shown)	. 250MFD, 250VAC	1
	PM2200-01RC	Running Capacitor (not shown)	. 35μF, 400V	1
		Fan Cover (not shown)		
		Cooling Fan (not shown)		
	JCDC3-01CS	Centrifugal Switch (not shown)		1
		Hex Nut		
		Lock Washer		
		Key		
		Eye Bolt		
		Strain Relief		
		Motor Cord (serial #20060001 and higher)		
8	JCDC2-07	Rubber Seal		1
		Hex Cap Screw		
		Motor Plate		
		Hex Cap Screw		
		Impeller		
		Socket Set Screw		
		Impeller Washer		
		Socket Head Cap Screw		
		Main Housing (serial #20060001 and higher)		
		Pan HD Phillips Machine Screw		
		Wire Clip		
		Reducing Motor		
		Pan Head Screw		
		Reducing Motor Cord (serial #20060001 and highe		
22	PM2200-022	Inlet	. 8"x4"x3	1
	PM2200-022A	Inlet Adaptor Assembly (#17,22 thru 24)		1
23	JCDC1.5-20	Inlet Adaptor Cap	. 4"	2
		Chain		
		Right Panel (serial #20060001 and higher)		
		Hose Hanger		
		Pan HD Phillips Machine Screw		
		Support Frame (serial #20060001 and higher)		
		Strain Relief		
		Strain Relief		
		Control Box Assembly (#31-1 thru 31-5)		
		Control Box Back Cover		
		Remote Control Transmitter		
		Circuit Board		
-		Overload Protector	-	
		Contactor		
		Reducing Motor Switch (serial #20060001 and high		
		Socket HD Button Screw (serial #20060001 and hi		
		Clear Hose		
		Negative Pressure Gauge		
		Adaptor		
		Socket Set Screw		
		Battery (not shown)		
		Pan HD Phillips Machine Screw		
		Powermatic Logo		
		Pan HD Phillips Machine Screw		
		ON-OFF Switch Assembly		
		Safety Key for Magnetic Switch (not shown)		
		Left Panel (serial #20060001 and higher)		
		Power Cord w/ 6-20P plug		
		Serrated Hex Flange Screw		
45		Base (serial #20060001 and higher)		Т

Index No		Description	Size	Qty
46	.JCDC3-33	Swivel Caster	3"	2
47	.JCDC3-33-1	Swivel Caster w/ Brake	3"	2
48	.717531	Drum Collection Bag (pkg. of 5)	980 x 1200 /mm	1
49	.F009884	Socket HD Button Screw	M5-0.8x8	8
50	.PM2200-050	Quick Lever Assembly		1
		Hex Nut		
		Nylon Lock Hex Nut		
		Handle		
		Flat Head Phillips Mach Screw		
		Rubber Pad		
		PC Plate		
		Rivet		
		. Upper Collection Drum		
		Drum Clamp		
		Lower Collection Drum		
		Collection Drum Assembly (#52 thru 61)		
		. Swivel Caster		
		Hex Cap Screw		
		Housing		
		Clamp		
		Cone		
		Foam Tape		
		. Hose Clamp		
67	.JCDC2-41	Hose	Dia. 12"	1
68	.PM2200-068	Drum Lid		1
69	.717511	Canister Collection Bag (pkg. of 5)	600 x 500 /mm	1
		Clamp		
		Foam Tape		
		Canister Filter – General		
		Canister Filter – HEPA		
72A	1792200H	HEPA Filter, complete (includes #72, 49,75-78,81-	-88)	1
		Hose Clamp		
		Hose		
		Support Plate		
		Bearing Cover		
		. Oil-retaining Bearing		
		Socket HD Button Screw		
		Canister Fixing Plate		
		Rod Kit (serial #20060001 and higher)		
		Hex Nut		
		Socket Set Screw		
		Rod		
		Spindle (serial #20060001 and higher)		
		Fixing Block		
		Scraper		
87	.TS-1481031	Hex Cap Screw	M5-0.8x12	8
		Hex Nut		
89	.SWSS3-201	Open End Wrench	10-12 mm	1
90	.5711571	Pan HD Phillips Machine Screw	3/16"x1/4"	1
		Quick Connector		
		Foam Tape		
		Angle Support (serial #20060001 and higher)		
		Washer (serial #20060001 and higher)		
		Washer (serial #20060001 and higher)		
		Allen Wrench (serial #20060001 and higher)		
		Socket HD Button Screw (serial #2006001 and hi		
		Toothed Lock Washer (serial #20060001 and high		
		Socket HD Button Screw (serial #20060001 and hi		
		Allen Wrench (serial #20060001 and higher)		
	. FIVIZZUU-HP-1	Hardware Package (see <i>sect. 5.0</i> )		

## 12.0 Electrical Connections for PM2200HK Cyclone DC



## 13.0 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.