

MODEL W1687 3 HP DUST COLLECTOR



INSTRUCTION MANUAL

Phone: 1-360-734-3482 • On-Line Technical Support: tech-support@woodstockint.com

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Printed in Taiwan

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION SAFETY ELECTRICAL ASSEMBLY OPERATIONS MAINTENANCE CLOSURE



INTRODUCTION

About Your New Dust Collector

Your new Shop Fox® Model W1687 has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

The Model W1687 Dust Collector features a 3 HP motor which provides air movement of 2830 cubic feet per minute and a static pressure of 14.4". It also features two cyclone collectors, (4) 19" x 33" filter/collection bags, a four-to-one intake port and a convenient push button on/off switch. Woodstock also offers a full line of optional accessories to build a collection system for a single machine or a complete shop including a two-stage adapter and a dust collection reference book. All accessories are offered through your nearest Woodstock International, Inc dealer.

Woodstock International, Inc. is committed to customer satisfaction in providing this manual. It is our intent to make sure all the information necessary for safety, ease of assembly, practical use and durability of this product be included.

If you should have any comments regarding this manual, please feel free to contact us at:

Woodstock International, Inc.
Attn: Technical Department
P.O. Box 2309
Bellingham, WA 98227

Woodstock Service And Support

We stand behind our machines! In the event that a defect is found, parts are missing or questions arise about your machine, please contact Woodstock International Service and Support at 1-360-734-3482 or send e-mail to: tech-support@woodstockint.com. Our knowledgeable staff will help you troubleshoot problems, send out parts or arrange warranty returns.

Warranty And Returns

Woodstock International, Inc. warrants all SHOP FOX® machinery to be free of defects from workmanship and materials for a period of 2 years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or to repairs or alterations made or specifically authorized by anyone other than Woodstock International, Inc.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the SHOP FOX® machine or machine part which in normal use has proven to be defective, provided that the original owner returns the product prepaid to the SHOP FOX® factory service center or authorized repair facility designated by our Bellingham, WA office, with proof of their purchase of the product within 2 years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that SHOP FOX® machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We 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.

Every effort has been made to ensure that all SHOP FOX® machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.

Machine Specifications

Motor Size	3 HP 220V Single-Phase
Motor Speed	3450 RPM
Amps	18
Suction Capacity	Approximately 2830 CFM
Static Pressure Rating	14.4"
Impeller Size	13"
Maximum Inlet Size	8"
Bag Size (4)	19" x 33"
Weight	152 lbs.

SAFETY

**READ MANUAL BEFORE OPERATING MACHINE.
FAILURE TO FOLLOW INSTRUCTIONS BELOW WILL
RESULT IN PERSONAL INJURY.**



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

Standard Safety Instructions

1. **Thoroughly read the instruction manual before operating your machine.** Learn the applications, limitations and potential hazards of this machine. Keep manual in a safe, convenient place for future reference.
2. **Keep work area clean and well lighted.** Clutter and inadequate lighting invite potential hazards.
3. **Ground all tools.** If a machine is equipped with a three-prong plug, it must be plugged into a three-hole grounded electrical receptacle or grounded extension cord. If using an adapter to aid in accommodating a two-hole receptacle, ground using a screw to a known ground.
4. **Wear eye protection at all times.** Use safety glasses with side shields or safety goggles that meet the national safety standards, while operating this machine.
5. **Avoid dangerous environments.** Do not operate this machine in wet or open flame environments. Airborne dust particles could cause an explosion and severe fire hazard.
6. **Ensure all guards are securely in place** and in working condition.
7. **Make sure switch is in the OFF position** before connecting power to machine.
8. **Keep work area clean,** free of clutter, grease, etc.
9. **Keep children and visitors away.** Visitors should be kept at a safe distance while operating unit.
10. **Childproof workshop** with padlocks, master switches or by removing starter keys.
11. **Disconnect machine when cleaning, adjusting or servicing.**
12. **Do not force tool.** The machine will do a safer and better job at the rate for which it was designed.

13. **Use correct tool.** Do not force machine or attachment to do a job for which it was not designed.
14. **Wear proper apparel.** Do not wear loose clothing, neck ties, gloves, jewelry, keep long hair tied up, etc.
15. **Remove adjusting keys and wrenches.** Before turning the machine on, make it a habit to check that all adjusting keys and wrenches have been removed.
16. **Use proper extension cord.** Examine the extension cord to ensure it is in good condition. Use the chart below to determine the correct length and gauge of extension cord needed for your particular needs. The amp rating of the motor can be found on its nameplate. If the motor is dual voltage, be sure to use the amp rating for the voltage you will be using. If you use an extension cord with an undersized gauge or one that is too long, excessive heat will be generated within the circuit increasing the chance of a fire or damage to the circuit. Never use an extension cord that does not have a ground pin and connected ground wire. Immediately replace an extension cord if it shows any signs of damage.
17. **Keep proper footing and balance** at all times.
18. **Do not leave machine unattended.** Wait until it comes to a complete stop before leaving the area.
19. **Perform machine maintenance and care.** Follow lubrication and accessory attachment instructions in the manual.
20. **Keep machine away from open flame.** Operating machines near pilot lights and/or open flames creates a high risk if dust is dispersed in the area. Dust particles and an ignition source may cause an explosion. Do not operate the machine in high-risk areas, including but not limited to, those mentioned above.
21. **If at any time you are experiencing difficulties** performing the intended operation, stop using the machine! Then contact our service department or ask a qualified expert how the operation should be performed.
22. **Habits—good and bad—are hard to break.** Develop good habits in your shop and safety will become second-nature to you.

 WARNING		
<p>Operating this equipment has the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).</p>		
		

Additional Safety Instructions For Dust Collector

1. Do not use dust collector for anything except wood dust. Materials such as liquids, metal shavings, metal dust, screws, glass, plastic or rock can cause sparks when coming into contact with any part of the collection system.
2. Ground your dust collector along all plastic components. The connection of bare 12 ga. copper wire on all plastic hoses, fittings and blast gates to all machines will help reduce the occurrence of static build up and discharge.
3. Do not place your hands, lumber or tools near inlet opening while machine is running or connected to power.
4. Always wear a respirator and safety glasses when removing, emptying or replacing collection bags. Secure bags tightly to dust collector to avoid bags from "blowing off."
5. Be aware that certain woods may cause an allergic reaction in people and animals, especially when exposed to fine dust. Make sure you know what type of wood dust you will be exposed to, the possibility of a allergic reaction and always wear an approved respirator.
6. If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Then contact our service department or ask a qualified expert how the operation should be performed.
7. Never use tools that are in poor condition. Inspect dust collector for bent fins, dents, ripped bags and unusual sounds before connecting machine to power and operating. Correct any problems before use.
8. Never allow steel to come into contact with impeller. Impact with any hard material may result in sparks which may cause fire. Be mindful of any situation that results in a risk of fire.



WARNING

It is absolutely critical that you read and understand this entire instruction manual before performing any operations with your machine. Serious personal injury may occur if safety and operational information is not understood and followed. Do not risk your safety by not reading!

CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.

Avoiding Potential Injuries



Figure 1. Never collect anything except wood dust.

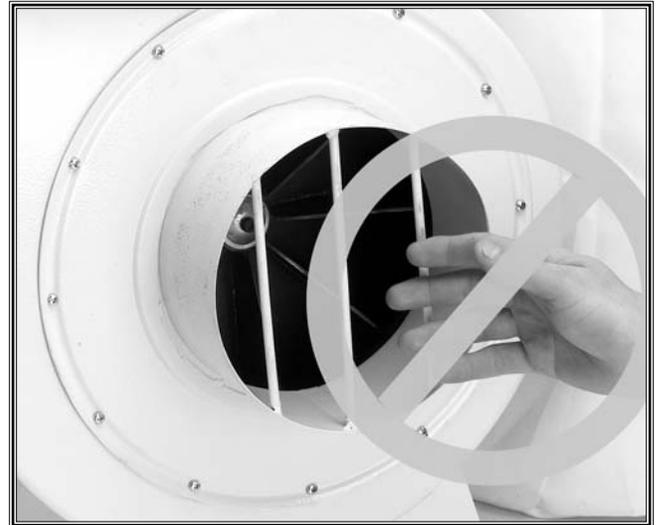


Figure 2. Keep hands away from impeller.



Figure 3. Wear a respirator when changing bags.



Figure 4. Unplug machine when changing bags.



Figure 5. Do Not remove impeller guard.

ELECTRICAL REQUIREMENTS

220V Operation

The Shop Fox® Model W1687 requires a 220V single-phase power source for operation. Also, you will need a NEMA-style L6-20 plug as shown in Figure 6. The motor supplied with your new machine is rated at 3 HP and will draw approximately 18 amps during 220 volt operation. When choosing a receptacle for this machine, consider using one with a 20 amp circuit breaker or fuse. Keep in mind that a circuit being used by other machines or tools at the same time will add to the total load being applied to the circuit. Add up the load ratings of all machines on the circuit. If this number exceeds the rating of the circuit wires or circuit breaker/fuse, use a different circuit.

Extension Cords

We do not recommend using an extension cord for 220V equipment. Instead, arrange the placement of your machinery and installed wiring to eliminate the need for extension cords. If you must use an extension cord, make sure it is rated Hard Service (grade S) or better. The extension cord must always contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.

Grounding

This machine must be grounded! The electrical cord supplied with the Model W1687 does not come with a 220 volt plug. Use a plug with a ground pin. If your receptacle does not accommodate a ground pin, have it replaced by a qualified electrician or have an appropriate adapter installed and grounded properly. An adapter with a grounding wire does not guarantee the machine will be grounded. A ground source must be verified.

	<p>⚠ WARNING</p> <p>Any electrical receptacle and circuit that you plug your machine into must be grounded. Never remove the grounding pin from any plug and always make sure all wiring to the machine is grounded before operating. Serious injury may occur if this warning is ignored!</p>
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<p>NOTICE</p> <p>Never replace the circuit breaker with one rated at a higher amperage or damage to the circuit may occur.</p>

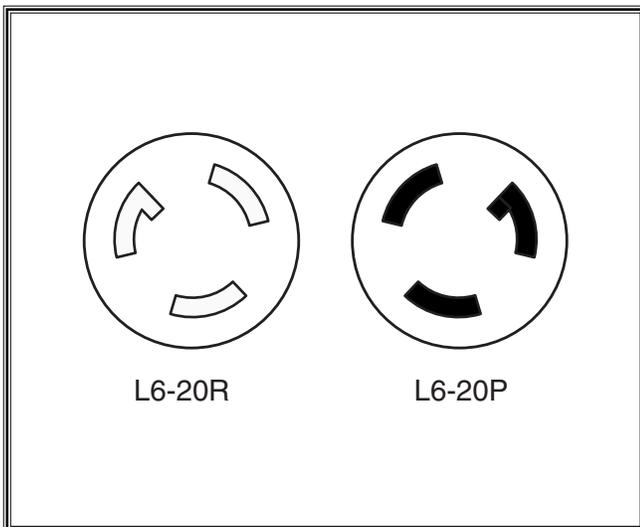
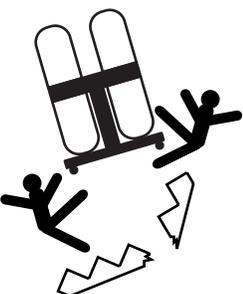


Figure 6. NEMA-style L6-20 plug and receptacle.

ELECTRICAL

ASSEMBLY INSTRUCTIONS

 	<p>⚠️ WARNING</p> <p>It is absolutely critical that you read and understand this entire instruction manual before performing any operations with your machine. Serious personal injury may occur if safety and operational information is not understood and followed. Do not risk your safety by not reading!</p>
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	<p>⚠️ WARNING</p> <p>If moving this machine up or down stairs, the machine must be dismantled and moved in smaller pieces. Make sure floor and stair structures are capable of supporting the combined weight of the machine parts and the people moving them.</p>
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	<p>⚠️ WARNING</p> <p>The Model W1683 is a heavy machine at 152 lbs. shipping weight. Use power or hydraulic equipment to avoid serious personal injury or death. Do NOT ignore this warning!</p>
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Unpacking

The Model W1687 has been carefully packaged for safe transporting. If you notice the machine has been damaged or is missing any parts, please contact Woodstock International Service and Support at 1-360-734-3482 or send e-mail to: tech-support@woodstockint.com.

	<p>⚠️ CAUTION</p> <p>Always make sure that all entrances to your shop are locked or that machines are equipped with safety lock-out devices to protect curious children or visitors from serious injury. Never allow unsupervised people in your shop who have not been fully trained!</p>
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ASSEMBLY

Component Layout



Figure 6. Model W1687 components laid out for identification.

The following is a description of the components shipped with the Shop Fox® Model W1687 Dust Collector. We recommend that all parts be laid out in a similar fashion to those in **Figure 7**. This will help in identification before beginning assembly. Should any part appear to be missing, examine the packaging carefully. If any key parts are missing call Woodstock International, Inc. at 360-734-3482 or contact us via tech-support@woodstockint.com.

- Impeller/Motor Assembly
- Base
- Collectors (2)
- 4-Way Inlet
- Collection/Filter Bags (4)
- Lower Support Brackets (2)
- Casters (4)
- Rubber Gaskets (3)
- Upper Support Bracket (2)
- Outlet
- Bolt $\frac{5}{16}$ " - 18 x $\frac{1}{2}$ " (52)
- Bag Clamp Attachment Kit
 - Bag Clamps (4)
 - Bolt $\frac{1}{4}$ " - 20 x $2\frac{1}{2}$ "(4)
 - Nut (4)
- Open-End Wrench 10/12MM
- Allen Wrench 5MM

	<p>! WARNING Never use flammables such as gas or other petroleum-based solvents to clean your machine. These products have low flash points and present the risk of explosion and severe personal injury!</p>
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	<p>! WARNING Never smoke while using any cleaning solvents. Smoking may cause explosion or risk of fire when exposed to these products!</p>
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	<p>! CAUTION Most solvents used to clean machinery are toxic when inhaled or ingested. When using these products, work in a well ventilated area and keep away from any potential ignition sources (pilot lights). Always dispose of any waste rags in a sealed container to make sure they do not cause fire or environmental hazards.</p>

Clean Up

The exposed, unpainted surfaces of the machine have been coated with an oil to prevent rust during shipment. This oil needs to be removed before operation. To remove the oil, we recommend using a solvent based degreaser. Avoid using any chlorine based solutions because they will damage the painted surfaces. Always follow the instruction of the product being used.

General

While the main components of the Shop Fox® Model W1687 are assembled at the factory, some assembly is required. The following is the recommended sequence best suited for final assembly.

TOOLS REQUIRED: You will need a 12mm open end wrench and a Phillips head screwdriver.

Base

Position the base upside down to reveal the caster mounting brackets. Attach each of the (4) casters to the caster mounting brackets using (16) $\frac{5}{16}$ "-18 x $\frac{1}{2}$ " hex bolts as shown in **Figure 8**.

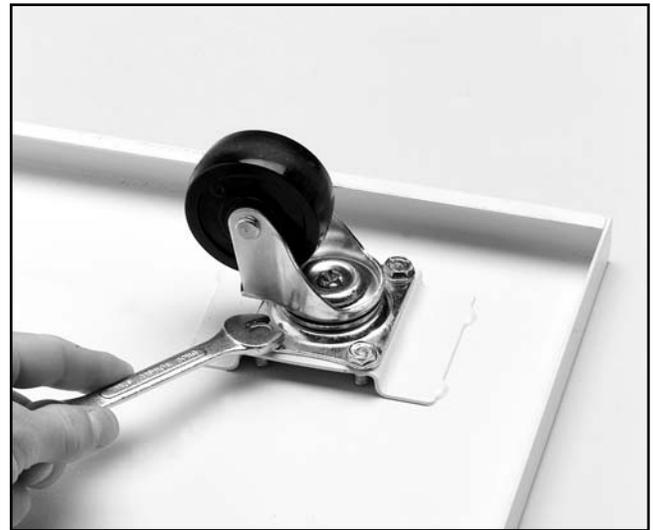


Figure 8. Mounting the casters to the base.

ASSEMBLY

	<p>!WARNING Safety glasses must be worn to prevent serious personal injury!</p>
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	<p>!WARNING Keep loose clothing rolled up and out of the way of machinery and keep hair pulled back.</p>
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	<p>!WARNING Make sure that your machine remains unplugged during any assembly, adjustment or maintenance procedures. Ignoring this warning may result in serious personal injury!</p>
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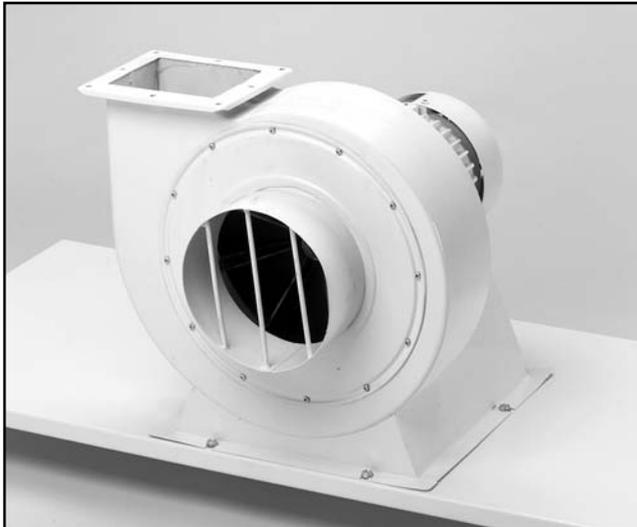


Figure 9. Mounting the impeller/motor to the base.

Impeller/Motor Assembly

The impeller/motor assembly consists of the fan assembly, switch, motor, and power cord. These are preassembled at the factory. Set the impeller/motor assembly on top of the base so the intake portion is near the edge of the base plate and the bolt holes are aligned with one another as shown in **Figure 9**. Attach the impeller/motor assembly to the base with (4) $\frac{5}{16}$ " - 18 x $\frac{1}{2}$ " bolts.



Figure 10. Mounting the outlet duct to the impeller/motor assembly.

Outlet Duct

Insert the square rubber gasket between the impeller/motor assembly and the lower flange on the outlet duct. Secure using (8) $\frac{5}{16}$ " - 18 x $\frac{1}{2}$ " bolts as shown in **Figure 10**.

Collectors

The (2) collectors attach to each of the outlet duct flanges and are later secured to the base with the support bracket assemblies. The inside of the collectors are cone shaped to force the air around in a circular motion. Be sure that the inside taper (cone) is pointing downward and that the collector inlet flange faces the outlet duct flange. Insert one of the rubber gaskets between the outlet duct flange and the collector flange. Secure with (8) $\frac{5}{16}$ "-18 x $\frac{1}{2}$ " bolts as shown in **Figure 11**. Repeat the procedure for the other collector on the opposite side.



Figure 11. Attaching the collector to outlet flange.

Support Brackets

Each support bracket assembly consist of an upper and a lower bracket. The lower brackets bolt to the base and to the side of the collectors. The upper brackets bolt to the side of the collectors and extend upward. The upper brackets have hooks that support the upper bags.

1. Attach each lower bracket to the top edge of the base plate using (4) $\frac{5}{16}$ "-18 x $\frac{1}{2}$ " bolts as shown in **Figure 12**.
2. Line up the two holes of each upper bracket with the holes on each lower bracket, as well as the holes on the collector sides. Secure the upper and lower brackets to the collectors with (4) $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " bolts as shown in **Figure 13**.



Figure 12. Mounting the brackets to the base.



Figure 13. Mounting the collector to the brackets.

ASSEMBLY



Figure 14. Securing the upper bag threaded band clamp.



Figure 15. Securing the lower bag quick-release band clamp.



Figure 16. Attaching the bag loop to the bracket

Collection Bags

There are (4) collection bags on the Model W1687. The upper bags can be identified by the SHOP FOX® logo. The upper bags are secured to the collector bodies by threaded band clamps and the lower bags are secured by quick-release band clamps.

1. Fasten the upper bags to the collector bodies by threading the bolts and locknuts through each band clamp as shown in **Figure 14**.
2. Fasten the lower bags to the collector bodies by means of the quick-release band clamps as shown in **Figure 15**.
3. Slide the fabric loops of the two upper bags over the upper support bracket hooks as shown in **Figure 16**.

4-Way Inlet Fitting

Slide the 4-way inlet fitting over the flange on the impeller/motor assembly as shown in **Figure 17**. Line up the screw hole on the inlet with the threaded hole on the impeller/motor assembly and secure with the included sheet metal screw.

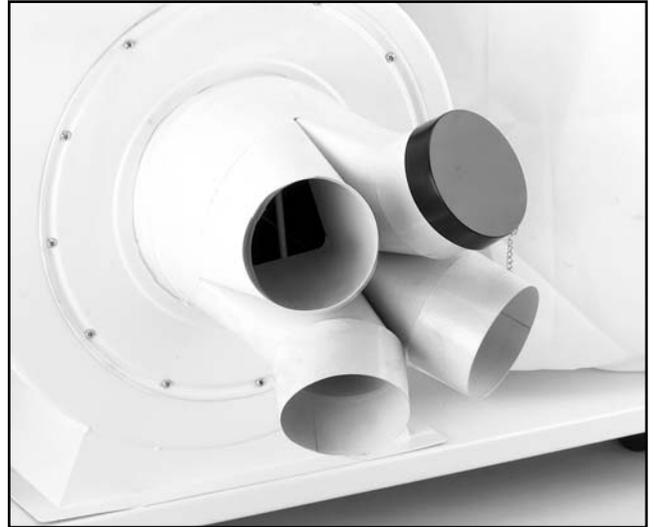


Figure 17. Securing the 4-way inlet fitting.

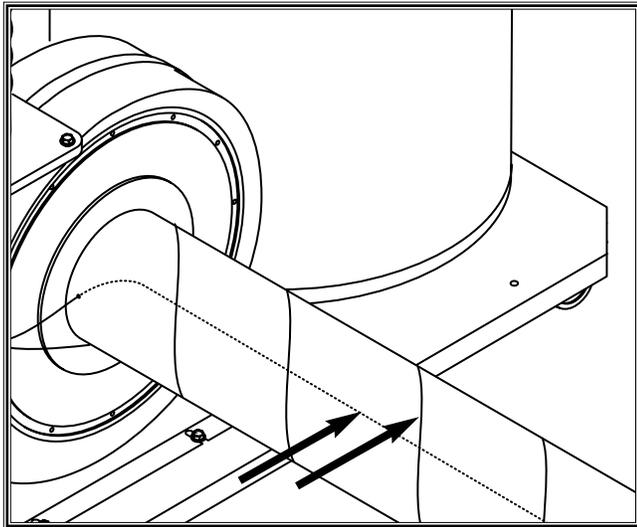


Figure 18. Wire inside and around pipe.

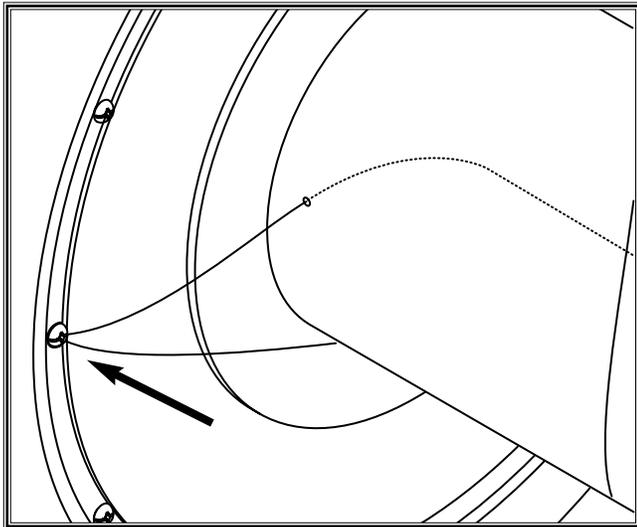


Figure 19. Ground wire secured to collector.

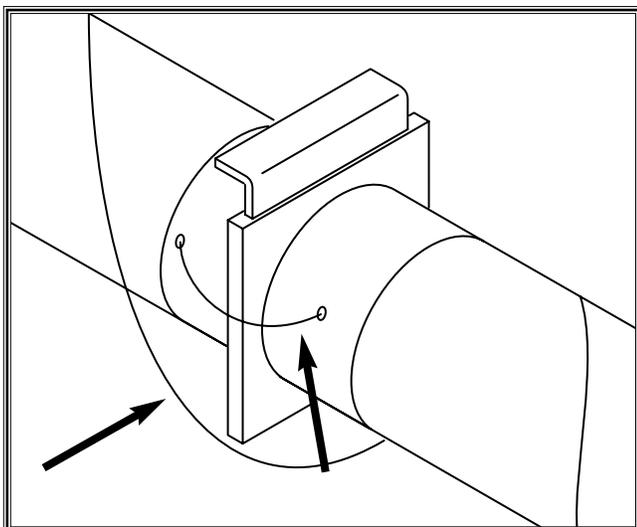


Figure 20. Ground wires bypassing blast gate.

System Grounding

Static electricity is generated by the collision of dust particles as they travel through dust collection ducting. Plastic ducting acts as an insulator, allowing the static charge to build. The build-up of electricity will eventually discharge to the nearest available grounding source. The discharge will be in the form of a spark (arc) of electricity that has the potential to ignite airborne dust, causing a fire or explosion hazard. Therefore, your dust collection system must be grounded by means of metal ducting throughout the entire system or, when plastic pipe or hoses are used, by bare copper wires.

If using metal ducting for the collection system, ensure that each machine in the system forms a conductive connection through the entire length of duct work and back to the dust impeller/motor assembly. If plastic hose or blast gates are used between metal ducting anywhere in the system, 12 gauge bare copper will need to be used to “jump” the plastic conductive barrier and complete the conductive line between the machine and the dust impeller/motor assembly.

When the system is to be made up entirely of plastic hoses and blast gates, wrap 12 gauge bare copper wire around the hose from the dust impeller/motor assembly to the machine body. Another wire should be placed inside the pipe/hose with exit holes for the wire at each end of the hose run. After exiting the hose at each end, the wire should connect to the dust impeller/motor assembly and the machine body as shown in **Figures 18 and 19**. If the system has branches, place wires in the same fashion and connect to the wires on the main pipe/hose with wire nuts. If blast gates are to be used, drill exit and entrance holes on both sides of the blast gate to allow wire to be fed out of and into the system as shown in **Figure 20**.

ASSEMBLY

Material Selection

As shown in **Figure 21**, there are several different options to choose from when deciding on a duct material. Variables such as ease of use, cost, availability, and your specific shop, all play a part in determining the best option for you.

METAL DUCT

Metal duct comes in many varieties. Stove pipe, heating/ventilation duct and duct made especially for dust collection are all options. Advantages of metal duct are its conductivity and that it does not contribute to static electrical charge build-up. However, static charges are still produced when dust particles strike other dust particles as they move through the duct. Since metal duct is a conductor, it can be grounded quite easily to dissipate any static electrical charges. However, metal duct is generally more expensive than plastic duct and it is not usually airtight unless specifically manufactured for dust collection. Specially manufactured metal duct, on the other hand, is quite expensive. Metal duct is also generally more difficult to cut and assemble.

FLEXIBLE HOSE

Flexible rubber hose, polyethylene, plastic flex-hose and other flexible ribbed hose are generally used for short runs, small shops and at rigid duct-to-tool connections. Woodstock offers a large variety of flexible hose with many diameters and lengths to choose from. The fig-

ure below shows some options to consider.

There are also many kinds of pure plastic flexible hose, such as non-perforated drainage type hose and dryer vent hose. Drainage type hose, while being economical, does not have the flexibility required for dust collection. The inside of the duct is also deeply corrugated and can increase the static pressure loss by as much as 50% over smooth wall duct. Dryer vent hose, while being completely flexible, is non-resistant to abrasion and has a tendency to collapse in a negative pressure system.

Woodstock flex-hose is designed specifically for the movement of solid particles, i.e. dust, grains and plastics. It is well suited for the removal of particulate matter, especially sawdust, since it is durable and completely flexible.

RIGID PLASTIC DUCT

The popularity of plastic duct is due to the fact that it is an economical and readily available product. It is also simple to assemble and easily sealed against air loss. The primary disadvantage of plastic duct for dust collection, whether black ABS or white PVC and even rubber or polyethylene flex-hose, is the inherent danger of static electrical build-up.

Accessories

See your local Woodstock Dealer for the Model W1049 Dust Collection Separator shown in **Figure 22**. The Model W1049 turns your dust collector into a 2-stage collection system.

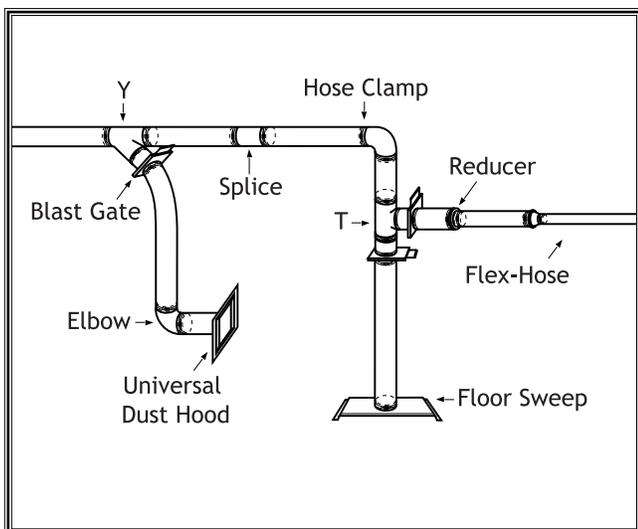


Figure 21. Dust Collection Fittings.

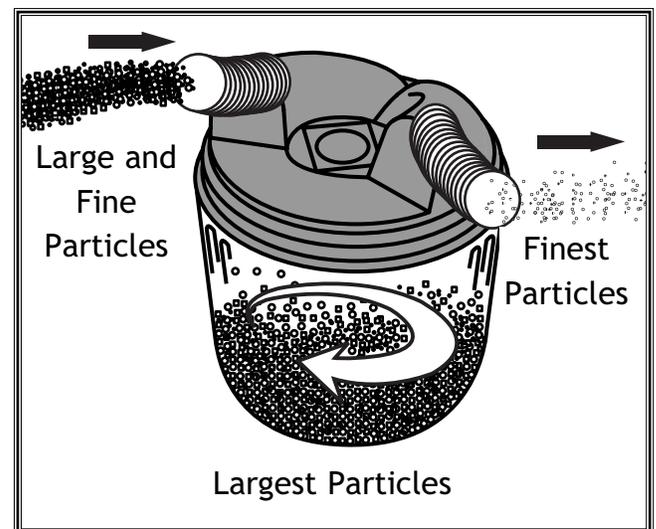


Figure 22. Dust Collection Separator.

System Design

When designing a successful dust collection system, planning is the most important step. Before you set out to run the first section of duct, consider these general guidelines for an efficient system:

1. Machines that produce the most saw dust should be placed nearest to the dust collector. These machines include thickness planers, shapers, sanders and bandsaws.
2. Ideally you should design the duct system to have the shortest possible mainline run and to have short secondary branch ducts.
3. Directional changes should be kept to a minimum. The more directional change fittings you use, the greater the loss of overall static pressure.
4. Gradual directional changes are more efficient than sudden directional changes (i.e. use the largest corner radius possible when changing hose or pipe direction).

5. Each individual machine should have a blast gate to control suction from one machine to another.
6. The simpler the system, the more efficient and less costly it will be.

The best way to plan your new system is to draw a bird's eye view of your shop and sketch the following as shown in **Figure 23**.

1. Your desired location of the dust collector, usually in a corner or along a wall.
2. The location of each machine in the system.
3. The location of the main line duct and each branch line.
4. The location of any obstruction such as a joist or heating duct, that will require special duct routing.

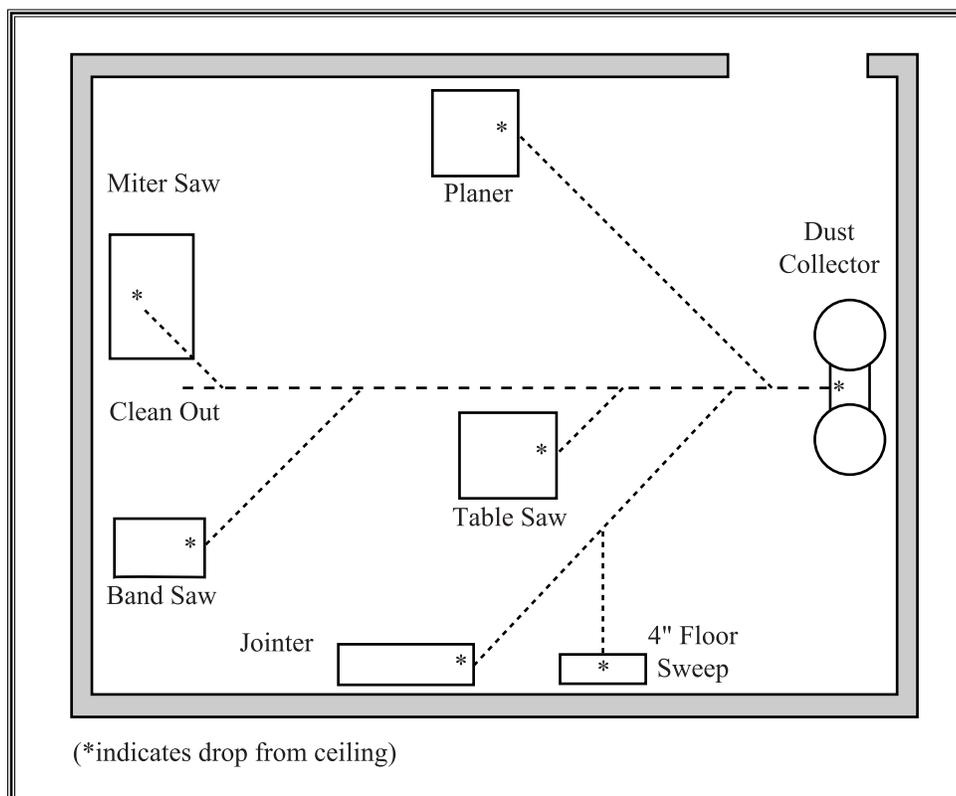


Figure 23. Bird's eye view of layout.

OPERATIONS

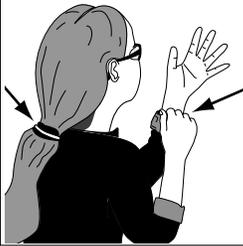
Test Run

Once assembly is complete and adjustments have been made, the machine is ready for a test run. The purpose of a test run is to identify any unusual noises and vibrations, as well as to confirm the machine is performing as intended.

1. Turn the machine on by pressing the *START* button on the power switch. Be sure to have your finger poised to hit the *STOP* button.
2. Once the machine is running, listen for any unusual noises. The machine should run smoothly with little or no vibrations.
3. If there are any unusual noises or vibrations, shut the machine *OFF* immediately. The machine should not be run any further until the problems are corrected.
4. Unplug the machine and investigate the source of the noise or vibration. Do not make any adjustments to the machine while it is plugged in.
5. Repeat **Steps 1-4** until the machine runs smoothly.

 	<p>⚠ WARNING</p> <p>It is absolutely critical that you read and understand this entire instruction manual before performing any operations with your machine. Serious personal injury may occur if safety and operational information is not understood and followed. Do not risk your safety by not reading!</p>
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	<p>⚠ WARNING</p> <p>Safety glasses must be worn to prevent serious personal injury!</p>
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	<p>⚠ WARNING</p> <p>Keep loose clothing rolled up and out of the way of machinery and keep hair pulled back.</p>
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Adjusting Outlet

It is common for one side of the dust collector to fill with dust at a faster rate than the other. If this happens, simply adjust the metal flap on the inside of the outlet as shown in **Figure 24**. Pushing the flap to one side or the other diverts the airflow; thus, equalizing the rate the bags fill with dust.

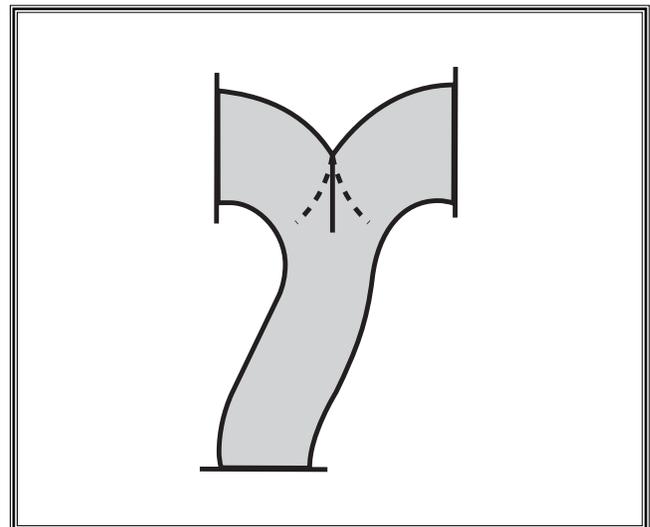


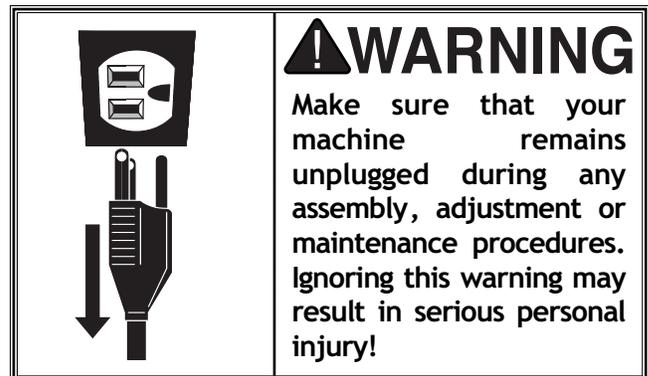
Figure 24. Adjusting the outlet flap to equalize the rate the collection bags fill with dust.

MAINTENANCE

General

Regular periodic maintenance on your Model W1687 will ensure its optimum performance. Make a habit of inspecting your machine each time you use it. Check for the following conditions and repair or replace when necessary.

1. Loose mounting bolts.
2. Worn switch.
3. Worn or damaged cords and plugs.
4. Damaged collection bags.
5. Any other condition that could hamper the safe operation of this machine.



Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them.

Cleaning

Make sure the dust collector motor remains clean and free of dust build up. Dust can cause heat to build up in the motor, reducing the life of the motor. It should be cleaned daily or every time the collection bag is emptied.



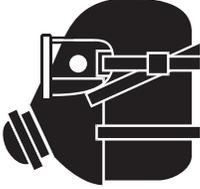
Figure 25. Wear a respirator when changing the bags.

Bag Cleaning

The lower bags on the dust collector should be emptied when they become $\frac{2}{3}$ to $\frac{3}{4}$ full.

1. Always wear a dust mask when removing and installing dust collection bags as shown in Figure 25.
2. Shake each upper bag and let the dust inside settle for a few minutes.
3. Loosen the band clamps holding the bags.
4. Take the bags off of the collector bodies and close the tops.
5. Place a garbage bag over the openings of the collection bags. Invert both bags to empty.

While the Model W1687 excels at collecting the majority of wood dust produced by your machines, we always recommend the supplemental aid of a shop air filter. Air filters are designed to collect the smaller dust particles that dust collector bags cannot trap.

	<p>CAUTION Always wear a dust mask in addition to safety glasses during operation. This machine produces sawdust that may cause allergic reactions or respiratory problems.</p>
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CLOSURE

The following pages contain parts diagrams/lists and a warranty card for your Shop Fox® Model W1687.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to us using the address in the General Information. The specifications, drawings, and photographs illustrated in this manual represent the Model W1687 as supplied when the manual was prepared. However, due to Woodstock International, Inc.'s policy of continuous improvement, changes may be made at any time with no obligation on the part of Woodstock International, Inc. Whenever possible, though, we send manual updates to all owners of a particular tool or machine that have registered their purchase with our warranty card. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to the operation of the machine. While most safety measures are generally universal, we remind you that each workshop is different and safety rules should be considered as they apply to your specific situation.

We recommend you keep this manual for complete information regarding Woodstock International, Inc.'s warranty and return policy. Should a problem arise, we recommend that you keep your proof of purchase with your manual. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department at 1-360-734-3482 or e-mail: tech-support@woodstockint.com.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines, and your local library are good places to start.

The Model W1687 is specifically designed for dust collection operations. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE. MODIFICATIONS OR IMPROPER USE OF THIS TOOL WILL VOID THE WARRANTY.** If you are confused about any aspect of this machine, **DO NOT** use it until all your questions have been answered.

! WARNING

As with all power tools, there is danger associated with the Model W1687. Use the tool with respect and caution to lessen the possibility of mechanical damage or operator injury. If normal safety precautions are overlooked or ignored, injury to the operator or others in the area is likely.

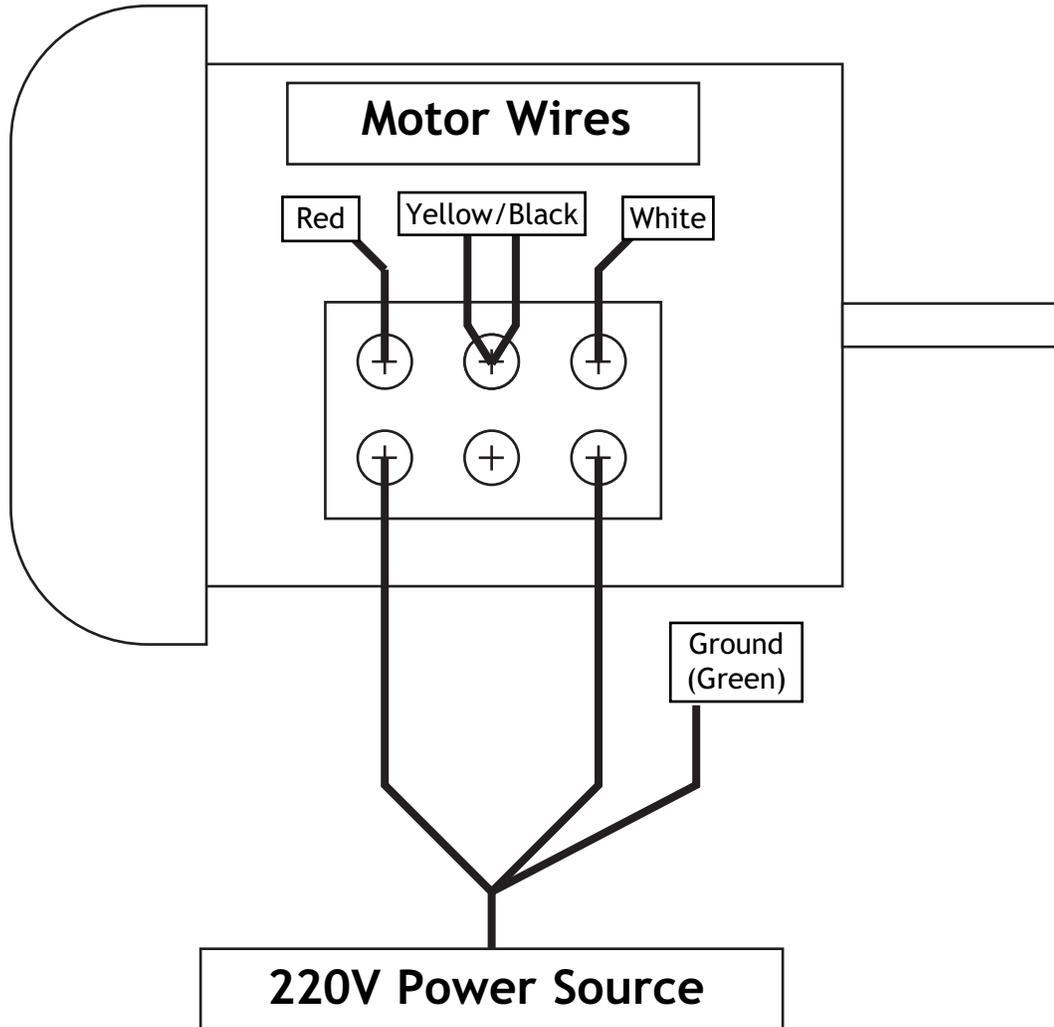
! WARNING

Operating this equipment has the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

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Wiring Diagram

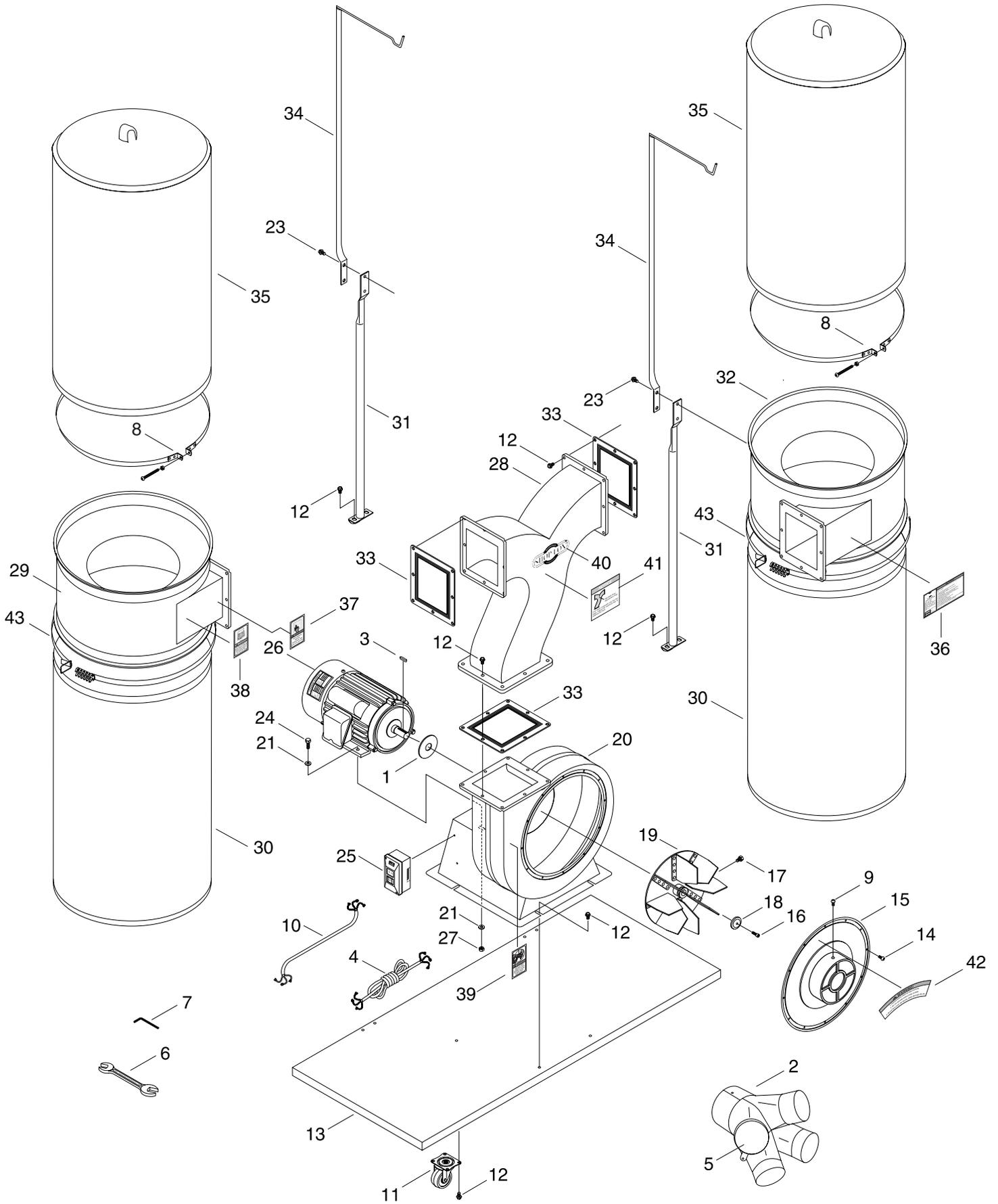
W1687 Dust Collector - 220V



DANGER

Disconnect power from machine before performing any electrical service. Failure to do this will result in a shock hazard leading to injury or death.

NOTE: The Wires From The Power Supply, Besides The Green Ground Wire, Are Interchangeable, Therefore Colors Are Not Specified.





REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
01	XP1687001	RING GASKET	23	XPFB01	FLANGE BOLT $\frac{5}{16}$ "-18 X $\frac{1}{2}$ "
02	XP1687002	INLET	24	XPB03	HEX BOLT $\frac{5}{16}$ "-18 X 1"
03	XPK28M	KEY 7 X 7 X 29	25	XP1687025	SWITCH
04	PWRCRD220L	POWER CORD 220V LONG	26	XP1687026	MOTOR 3HP
05	XP1687005	INLET CAP	27	XPN02	HEX NUT $\frac{5}{16}$ "-18
06	XPWR1012	WRENCH 10 X 12	28	XP1687028	OUTLET
07	XPAW05M	ALLEN WRENCH 5MM	29	XP1687029	LEFT COLLECTOR
08	XP1687008	68" BAND CLAMP	30	XP1687030	DUST COLL BAG, LOWER
09	XPS06	PHLP HD SCR 10-24 X $\frac{3}{8}$ "	31	XP1687031	COLLECTOR SUPPORT
10	PWRCRD220S	POWER CORD 220V SHORT	32	XP1687032	RIGHT COLLECTOR
11	XP1687011	CASTER	33	XP1687033	SQUARE GASKET
12	XPFB01	FLANGE BOLT $\frac{5}{16}$ "-18 X $\frac{1}{2}$ "	34	XP1687034	UPPER BAG SUPPORT
13	XP1687013	BASE PLATE	35	XP1687035	DUST COLL BAG, UPPER
14	XPS06	PHLP HD SCR 10-24 X $\frac{3}{8}$ "	36	XP1687036	LABEL-MACHINE ID
15	XP1687015	INLET COVER	37	XP1687037	LABEL-READ MANUAL
16	XP1687016	CAP SCREW M6-1 X 19 LH	38	XP1687038	LABEL-DUST MASK
17	XPB09	HEX BOLT $\frac{5}{16}$ "-18 X $\frac{1}{2}$ "	39	XP1687039	LABEL-WATCH FINGERS
18	XP1687018	IMPELLER CAP	40	XP1687040	CAST LOGO
19	XP1687019	TURBO FAN	41	XP1687041	LABEL-MANIFOLD NOTICE
20	XP1687020	COLLECTOR BODY	42	XP1687042	LABEL-INLET WARNING
21	XPW07	FLAT WASHER $\frac{5}{16}$ "	43	XP1687043	QUICK-RELEASE CLAMP

WARRANTY CARD

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone Number _____ E-Mail _____ FAX _____
 MODEL # _____ Serial # _____

The following information is given on a voluntary basis and is strictly confidential.

CUT ALONG DOTTED LINE

1. Where did you purchase your Shop Fox® machine?

2. How did you first learn about us?
 Advertisement Friend
 Mail order Catalog Local Store
 World Wide Web Site

 Other _____
3. Which of the following magazines do you subscribe to.
 American Woodworker Today's Homeowner
 Cabinetmaker Wood
 Family Handyman Wooden Boat
 Fine Homebuilding Woodshop News
 Fine Woodworking Woodsmith
 Home Handyman Woodwork
 Journal of Light Construction Woodworker
 Old House Journal Woodworker's Journal
 Popular Mechanics Workbench
 Popular Science American How-To
 Popular Woodworking

 Other _____
4. Which of the following woodworking/remodeling shows do you watch?
 Backyard America The New Yankee Workshop
 Home Time This Old House
 The American Woodworker Woodwright's Shop

 Other _____
5. What is your annual household income?
 \$20,000-\$29,999 \$60,000-\$69,999
 \$30,000-\$39,999 \$70,000-\$79,999
 \$40,000-\$49,999 \$80,000-\$89,999
 \$50,000-\$59,999 \$90,000 +
6. What is your age group?
 20-29 50-59
 30-39 60-69
 40-49 70 +
7. How long have you been a woodworker?
 0 - 2 Years 8 - 20 Years
 2 - 8 Years 20+ Years
8. How would you rank your woodworking skills?
 Simple Advanced
 Intermediate Master Craftsman
9. How many Shop Fox® machines do you own? _____
10. What stationary woodworking tools do you own? Check all that apply.
 Air Compressor Panel Saw
 Band Saw Planer
 Drill Press Power Feeder
 Drum Sander Radial Arm Saw
 Dust Collector Shaper
 Horizontal Boring Machine Spindle Sander
 Jointer Table Saw
 Lathe Vacuum Veneer Press
 Mortiser Wide Belt Sander

 Other _____
11. Which benchtop tools do you own? Check all that apply.
 1" x 42" Belt Sander 6" - 8" Grinder
 5" - 8" Drill Press Mini Lathe
 8" Table Saw 10" - 12" Thickness Planer
 8" - 10" Bandsaw Scroll Saw
 Disc/Belt Sander Spindle/Belt Sander
 Mini Jointer

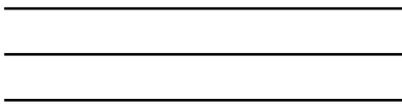
 Other _____
12. Which portable/hand held power tools do you own? Check all that apply.
 Belt Sander Orbital Sander
 Biscuit Joiner Palm Sander
 Circular Saw Portable Planer
 Detail Sander Saber Saw
 Drill/Driver Reciprocating Saw
 Miter Saw Router

 Other _____
13. What machines/supplies would you like to see?

14. What new accessories would you like Woodstock International to carry?

15. Do you think your purchase represents good value?
 Yes No
16. Would you recommend Shop Fox® products to a friend?
 Yes No
17. Comments: _____

FOLD ALONG DOTTED LINE



Place
Stamp
Here



WOODSTOCK INTERNATIONAL, INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309



FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

