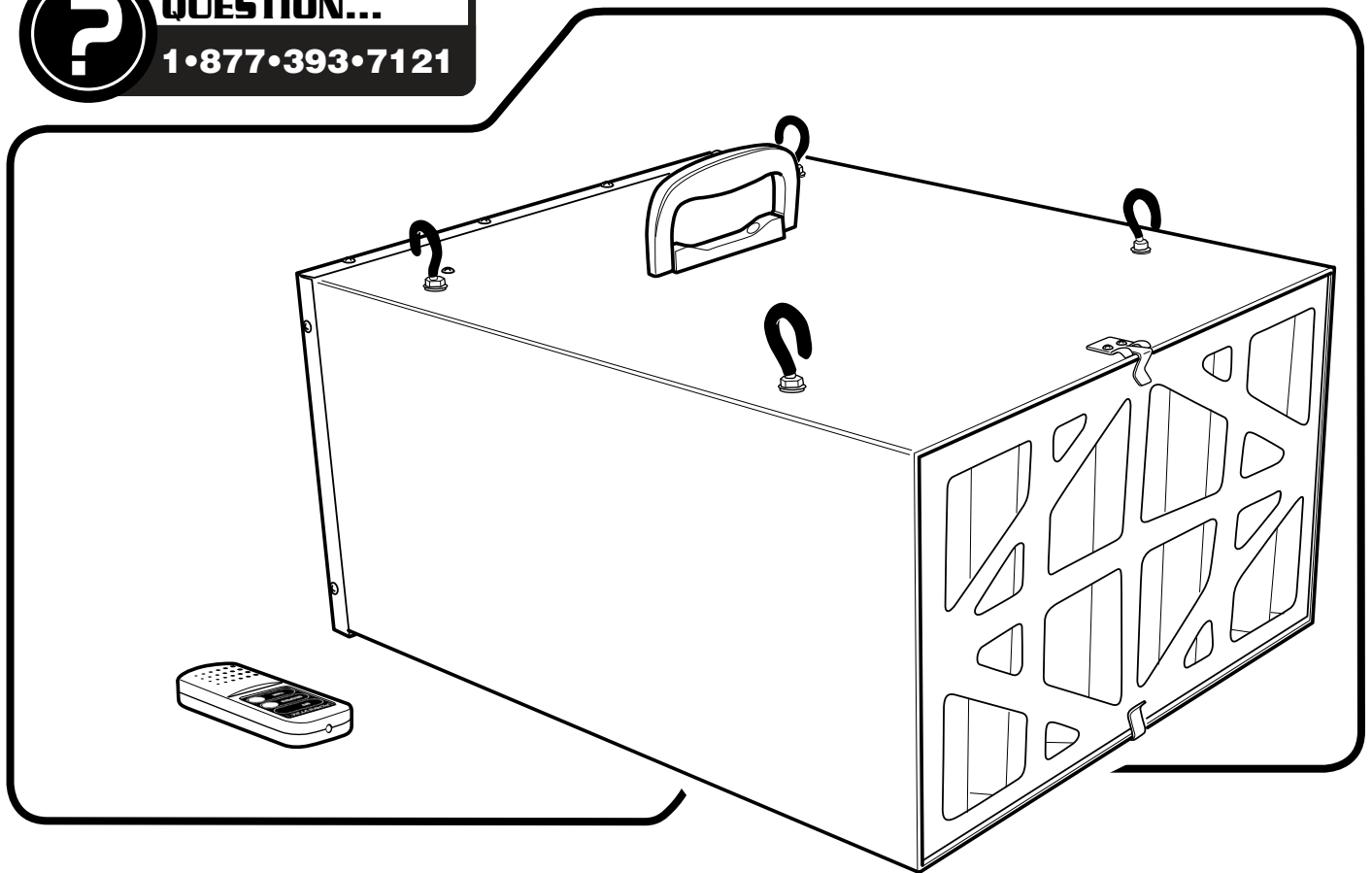


# Owner's Manual

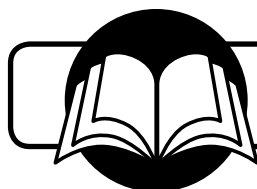
# **POWERTEC**

# **AIR FILTRATION SYSTEM**

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Visit us on the web at [www.southerntechllc.com](http://www.southerntechllc.com)



You will need this manual for safety instructions, operating procedures, and warranty. Put it and the original sales invoice in a safe, dry place for future reference.

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# PRODUCTION SPECIFICATIONS

Horsepower (Maximum Developed)	1/6 HP
Voltage	120 V
Hertz	60 Hz
Controls	Manual or Remote Control
Number of Speeds	3
Air Flow (CFM)	260/362/409
Outer Filter	5 Micron
Inner Filter	1 Micron
Filtration Timing	Auto Off, 1 hr., 2 hr., 4hr
Impeller	Squirrel Cage
Sound Rating @ 1M	High Speed 69dB
	Medium Speed 67dB
	Low Speed 62 dB

# MOTOR SPECIFICATIONS

Planer is supplied with a 2 HP motor installed. The 120 Volt AC universal motor has the following specifications:

Horsepower (Maximum Developed)	1/6 HP
Voltage	120
Hertz	60

# SAFETY RULES



Be aware of general power tool safety. Make sure all the safety rules are understood.

- Disconnect the machine from power source whenever adjusting or replacing any parts.
- Do not plug planer in unless switch is in the “OFF” position.
- Keep hands away from all moving parts.
- Wear eye protection or face shield during operation.
- Make sure all mobile parts move freely and are free from interference.
- If ceiling mounted, bottom of air filtration system must be at least 7 feet above the floor.
- If ceiling mounted, mounts must be anchored to building structure which will support a minimum of at least 100 pounds. Never mount to surfaces such as dry wall or false ceiling grinds, etc.
- To reduce the risk of electrical shock, do not expose air filtration to water or rain.
- Never dust a machine directly into the air filtration system.
- To avoid a potentially dangerous situation, do not use this machine to filter flammable vapors or smoke. This air filtration system is designed and intended for the filtration of air borne wood dust only. It is neither designed nor intended for any other purpose whatsoever.
- Use the machine for filtering wood dust only. Not for use filtering sheet rock dust, silica, lead paint dust, asbestos, biohazards, smoke, toxic fumes, spray paint or flammable liquids.
- Failure to comply may result in serious injury and / or property damage.

# ASSEMBLY



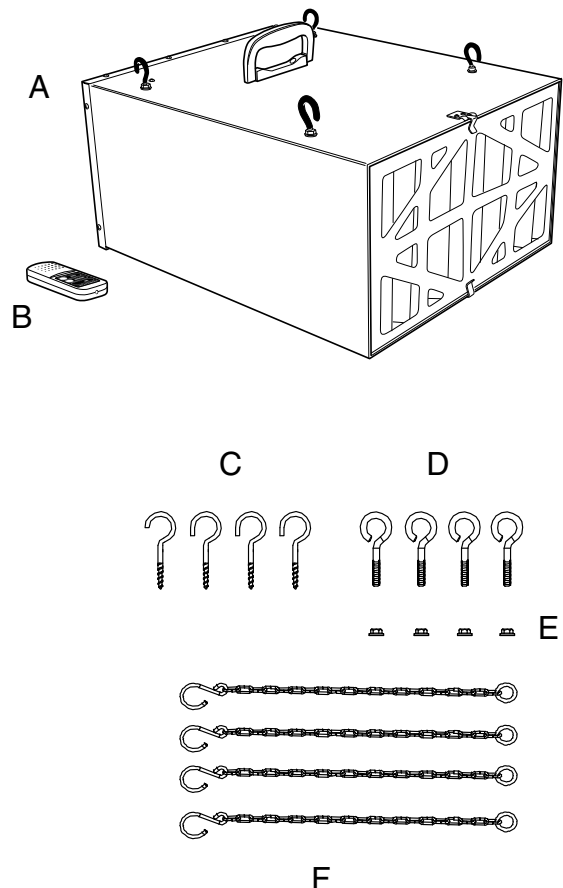
## UNPACKING

Refer to Figure 1

- Check for freight damage before opening the package. If freight damage is noticed, file a claim with the carrier immediately.
- Check to ensure all parts are accounted for. If any parts are missing, please contact the customer service center.
- This Air Filtration System comes mostly assembled. It requires some additional assembling, installation, and adjustment before use.
- Locate the following parts before assembling:

- A. Air Filtration Unit
- B. Remote Controller
- C. Hook Screw (4)
- D. Eye Bolt (4)
- E. Flange Nut (4)
- F. Hook Chain (4)

Figure 1 Unpacking



- If you notice any transport damage while unpacking, notify the supplier immediately,
- Dispose of the packing in an environmentally friendly manner.

You should take into consideration how and where you will place the unit:

- It can be placed on a bench or be hung from the ceiling.
- This unit will work best if it is located away from corners, and heating/cooling vents.
- If using on sawhorses the air filtration unit should be clamped in place.
- This unit is specifically designed to circulate and filter non-metallic dust, which is generated throughout the work area.

**CAUTION:** Mounting hooks must be anchored to a building structure which can support a minimum of 45 kg. Never mount to surface such as dry wall or false ceiling grids, etc.

**Tools required for assembly:**

- No. 2 Phillips screwdriver (not supplied)
- 10mm wrench (not supplied)

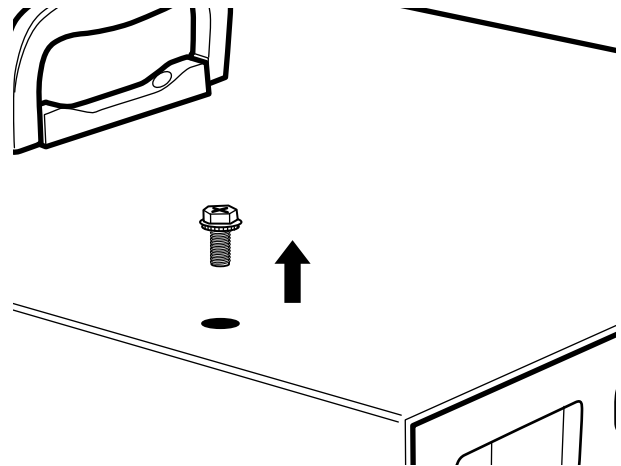
**INSTALLING THE UNIT**

Refer to Figure 2 to 4

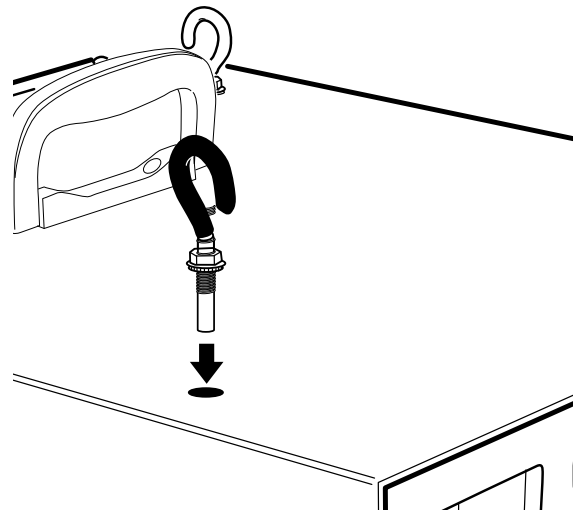
- Remove all packing from inside of the unit by removing the outer filter and inner filters.
- The air filtration unit can be hung from the ceiling.
- Remove four screws from cabinet top (Figure 2).
- Hang the unit using four hook bolts, and four hex nuts (Figure 3) provided.
- The lock nut needs to be threaded almost all the way up the eye bolt. Screw the eye bolt into the hole and tighten lock nut against the cabinet top. You will need to hold the eyebolt so it does not spin while tightening the lock nut.
- Repeat steps for remaining three eyebolts.
- Drill holes and securely mount the four mounting hooks provided in the ceiling and use the provided sections of chain for mounting your air filtration system. (Figure 4)

**NOTE:** Hang the unit at least 7 Ft. above floor level.

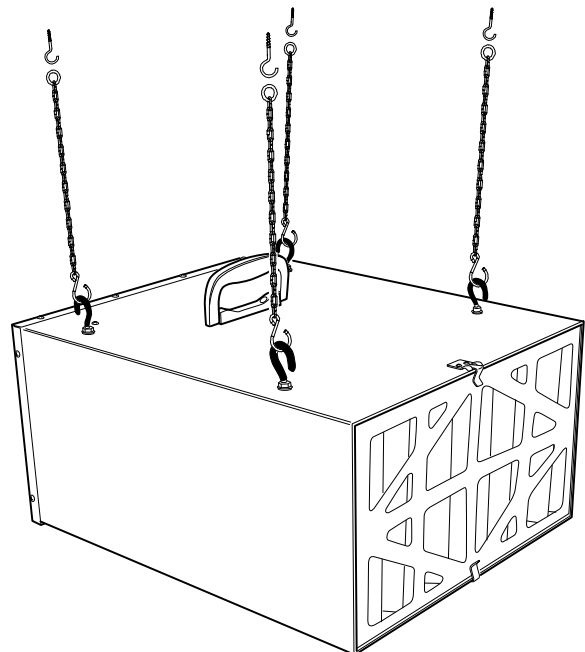
**Figure 2**



**Figure 3**



**Figure 4**



## POWER SOURCE



Do not connect to the power source until the machine is completely assembled.

The machine is wired for 120 volts, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the “OFF” position. Running the unit on voltages which are not within range may cause overheating and motor burn-out. Heavy loads require that voltage at motor terminals be no less than the voltage specified on nameplate.

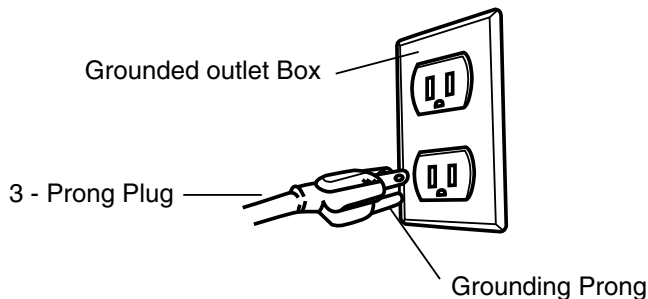
## GROUNDING INSTRUCTIONS



Improper connection of equipment grounding conductor can result in the risk of electrical shock.

- The machine should be grounded while in use to protect operator from electrical shock.
- In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electric current.
- This machine is equipped with an approved 3-conductor cord rated at 120V and a 3-prong grounding type plug for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 5).
- The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Check with a qualified electrician or service personnel if these instructions are not completely understood or if in doubt as to whether the tool is properly grounded.
- Do not modify plug provided. If it will not fit in outlet, Have a proper outlet installed by a qualified electrician. Use only 3-wire extension cords, that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine’s plug, as show in Figure 6.

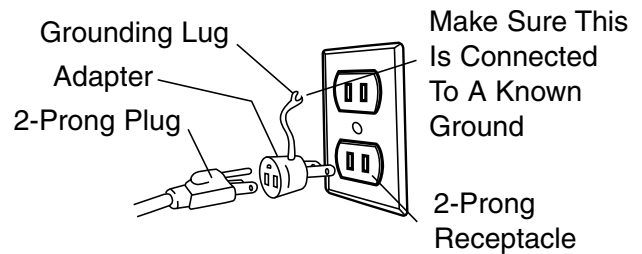
Figure 5 - 3-Prong Receptacle



Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Inspect tool cords periodically, and if damaged, have it repaired by an authorized service facility.
- 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 green (or green and yellow) wire to a live terminal.
- A temporary 3-prong to 2-prong grounding adapter (see Figure 6) may be used to connect this plug to a matching 2-conductor receptacle as shown in figure 6. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.

Figure 6 - 2-Prong Receptacle



- In Canada, the use of temporary adapter is not permitted by the Canadian Electric Code. Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.
- Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper grounding means that it must be tested by a qualified electrician.

## EXTENSION CORDS

Use proper extension cords. Make sure the extension cord is in good condition. Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug. When using an extension cord, make sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in the voltage, resulting in loss of power and overheating. Use the table to determine the minimum wire size (A.W.G.) extension cord.

### Extension Cord Length

Wire Size.....	A.W.G.
Up to 25 ft.....	16 gauge

**NOTE:** Using extension cords over 25 ft. long is not recommended.



## ⚠ WARNING

### REMOTE CONTROL

Refer to Figure 7

TIME button controls the three different timer settings. (Figure 7)

- 1H will light up on the back of the unit by pressing the time button once. The machine will operate for 1 hour then turn off.
- 2H will light up on the back of the unit by pressing the time button twice. The machine will operate for 2 hours then turn off.
- 4H will light up on the back of the unit by pressing the time button three times. The machine will operate for 4 hours then turn off.

### ON/OFF SWITCH

Refer to Figure 8

- On/Speed Button turns unit on and controls the three different fan settings, LO, MID and HI. There is also an On/Speed button on the switch panel to the rear of the machine, which controls the speed and turns the unit ON in LO speed.
- Off button turns the unit off. There is also a manual off button on the switch panel to the rear of the machine.
- The fuse is located beneath the rear control panel. If necessary, replace with equivalent 1A fuse.

## ⚠ WARNING

To reduce the risk of injury unplug the air cleaner from the power source and ensure the fan is stationary before servicing or changing filters. Failure to comply may cause serious injury.

### CHANGING THE FILTERS

Refer to Figure 9

- There are two filters that need to be cleaned and / or changed. The outer filter can easily be removed by disengaging the two clips.
- Once the outer filter is removed the inner filter can now be pulled out of the unit. The inner filter can be blown out with air or washed out. The filter should be completely dry before reinstalling into the machine.
- The filter should be replaced and / or cleaned depending on the amount of usage and the environment of your workshop. Clogged filters will reduce the amount of air circulation. There is an arrow indicating the air flow direction on the outer filter. Make sure the filter is inserted facing the proper direction.

Figure 7

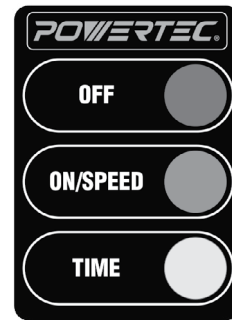


Figure 8

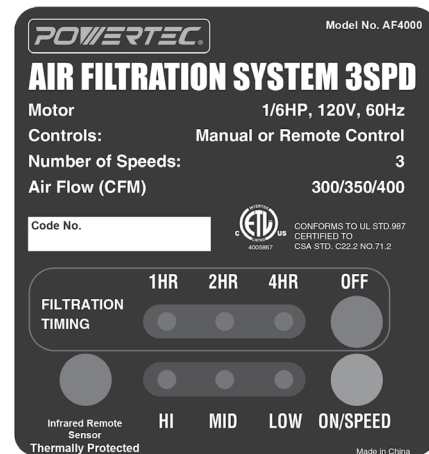
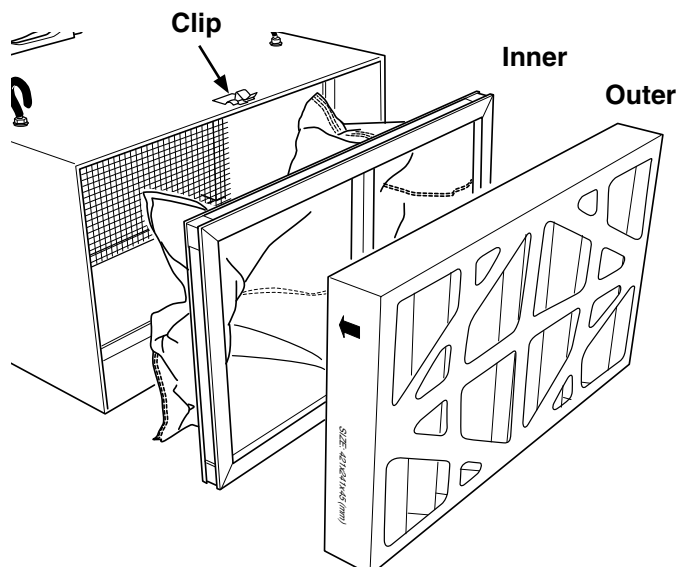


Figure 9

### REPLACEMENT FILTERS

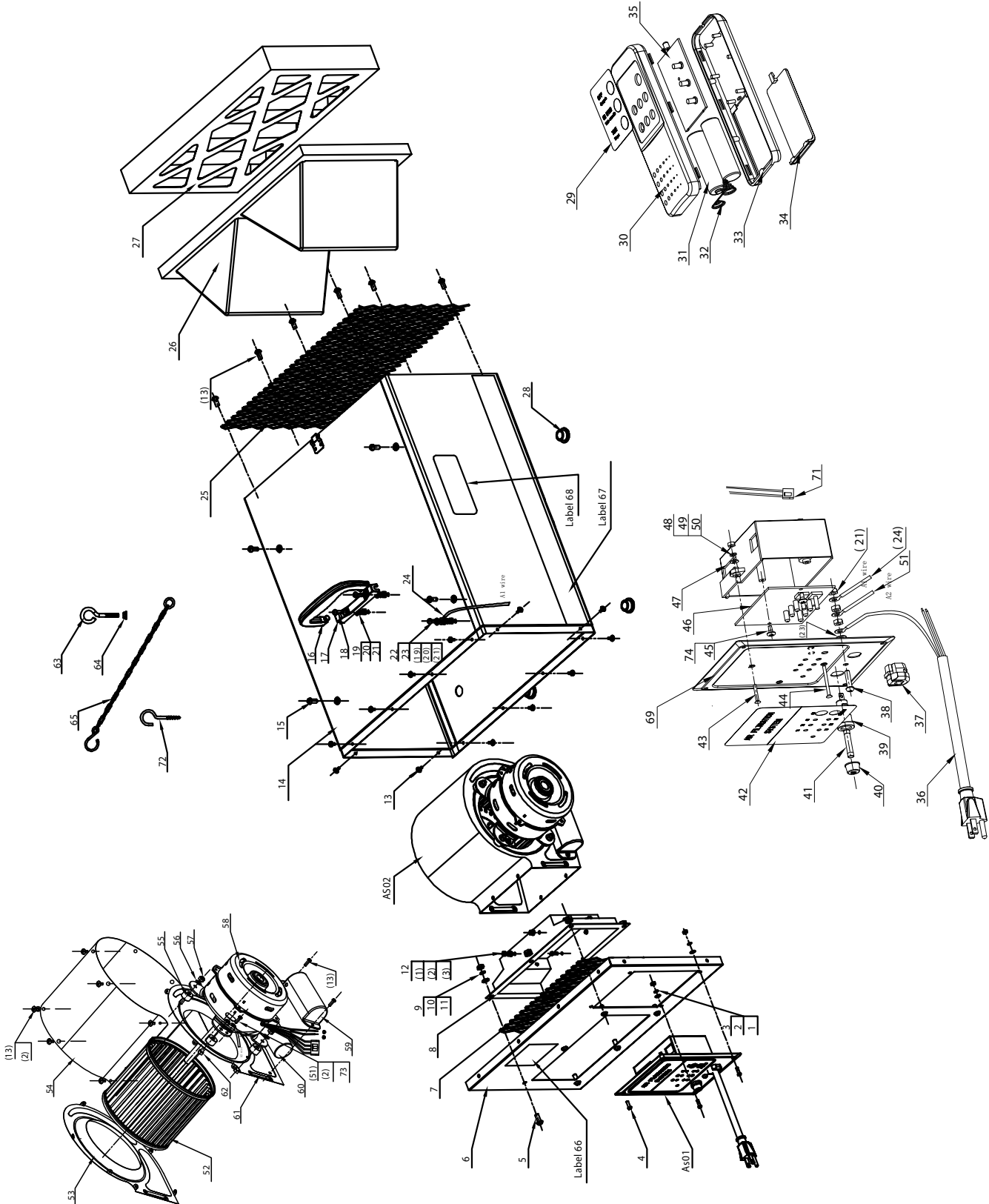
- Inner Pocket Filter
- Electrostatic Outer Filter



SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
<p>Motor does not run.</p>	<ol style="list-style-type: none"> <li>1. Machine not plugged in</li> <li>2. Power switch in "OFF" position</li> <li>3. Power switch or cord is faulty</li> <li>4. Fuse or circuit breaker are open.</li> <li>5. Remote control is not working.</li>   <li>6. Remote control batteries are dead</li> <li>7. Infrared receiver is not working</li> <li>8. Control panel ON/OFF button is B. Inspect or replace control panel circuit board not working.</li> <li>9. Control panel fuse is blown</li> <li>10. Motor does not work</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug power cord into electrical receptacle</li> <li>2. Lift switch to "ON" position</li> <li>3. Replace switch or power cord</li> <li>4. Overloaded electrical circuit</li> <li>5. Point remote control directly at control panel                             <ul style="list-style-type: none"> <li>-Make sure infrared sensor on the control panel is not blocked</li> <li>-Move remote control closer to the control panel for better direct infrared signal</li> </ul> </li> <li>6. Replace batteries. See page 13 for instruction</li> <li>7. Inspect or replace control panel circuit board</li> <li>8. Inspect or replace control panel circuit board</li> <li>9. Replace blown fuse, see page 13 for instruction</li> <li>10. Replace motor</li> </ol>
<p>Motor stalls or does not have full power.</p>	<ol style="list-style-type: none"> <li>1. Incorrect line voltage.</li> <li>2. Motor capacitor has failed</li> <li>3. Control panel circuit board has failed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Have a qualified electrician check circuit for proper voltage</li> <li>2. Replace motor capacitor</li> <li>3. Inspect or replace control panel circuit board</li> </ol>
<p>System has vibration or is noisy</p>	<ol style="list-style-type: none"> <li>1. Motor or cabinet part is loose.</li> <li>2. Motor fan is rubbing cover.</li>   <li>3. Motor bearings are loud.</li>   <li>4. Air filters rattle</li> <li>5. Impeller fan is loose, unbalanced or damaged.</li>   <li>6. Motor base is loose in the cabinet</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect all hardware and retighten or replace.</li> <li>2. Check position of fan and cover                             <ul style="list-style-type: none"> <li>Adjust or replace loose/damaged part.</li> </ul> </li> <li>3. Rotate motor shaft to isolate the issue                             <ul style="list-style-type: none"> <li>System has Replace worn bearings.</li> </ul> </li> <li>4. Inspect and reposition filters.</li> <li>5. Turn machine off and unplug from power.                             <ul style="list-style-type: none"> <li>damaged -Inspect impeller for bent or damaged areas.</li> <li>-Secure impeller on motor shaft and replace if any damage is found.</li> </ul> </li> <li>6. Tighten any loose fasteners.</li> </ol>
<p>Poor air flow and dust collection</p>	<ol style="list-style-type: none"> <li>1. Filters are dirty.</li> <li>2. Poor system location in shop.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace both air filters frequently. See page 12.</li> <li>2. Reposition system in the shop for best air circulation. Refer page 9 for proper air filtration system placement.</li> </ol>
<p>Fuse blows or circuit breaker trips.</p>	<ol style="list-style-type: none"> <li>1. Motor overloaded.</li> <li>2. Overloaded electrical circuit breaker.</li> <li>3. Wrong fuse or circuit breaker</li> <li>4. Undersized or excessive length of extension cord.</li> <li>5. Grinding wheels are blocked.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce pressure on workpiece.</li> <li>2. Reduce the amount of items on circuit.</li>   <li>3. Replace with correct fuse or circuit breaker.</li> <li>4. Use correct size.</li>   <li>5. Unplug machine and remove obstruction.</li> </ol>



Figure 10





# AIR FILTRATION SYSTEM PARTS LIST



Key No.	Part No.	Description	Specification	Qty	Key No.	Part No.	Description	Specification	Qty
1	AF4000001	Hex Nut	M4	13	61	AF4000061	Fan Housing Cover-R		1
2	AF4000002	Flat Washer	Ø4	13	62	AF4000062	Hex Cap Screw	M5X25	4
3	AF4000003	Lock Washer	Ø4	13	63	AF4000063	Eye Bolt		4
4	AF4000004	Pan Head Screw	M4X12	5	64	AF4000064	Flange Nut	M6	4
5	AF4000005	Pan Head Screw	M6X15	6	65	AF4000065	Hook Chain		4
6	AF4000006	Air Box Front Cover		1	66	AF4000066	Wire Nut 18AWG		2
7	AF4000007	Gride Plate	266X140X1	1	67	AF4000067	Stripe Label		2
8	AF4000008	Air Guide		1	68	AF4000068	Logo Label		2
9	AF4000009	Hex Nut	M6	6	69	AF4000069	Switch Box Cover		1
10	AF4000010	Flat Washer	Ø6	6	70	AF4000070	Lock Wire Nut	P2S	2
11	AF4000011	Lock Washer	Ø6	6	71	AF4000071	Lock Wiring Nut		1
12	AF4000012	Socket Head Cap Screw	M4X12	8	72	AF4000072	Hook Screw		4
13	AF4000013	Self Tapping Screw	ST4X10	10	73	AF4000073	Tooth Lock Washer	Ø4	1
14	AF4000014	Air Box	ST4.8x10L	1	74	AF4000074	Insulation Washer	Ø3 #4170	2
15	AF4000015	Pan Head Screw	M6X12	4					
16	AF4000016	Handle	M6 x 14	1					
17	PAF400017	Handle Bracket		1					
18	AF4000018	Pan Head Screw	M5X16	2					
19	AF4000019	Flat Washer	Ø5	3					
20	AF4000020	Lock Washer	Ø5	3					
21	AF4000021	Hex Nut	M5	6					
22	AF4000022	Pan Head Screw	M5X12	1					
23	AF4000023	Tooth Lock Washer	Ø5	2					
24	AF4000024	Wire	18AWG	1					
25	AF4000025	Gride Plate	251X428	1					
26	75006	Inner Pocket Filter	421x241x160	1					
27	75007	Electostatic Outer Filter	421x241x45	1					
28	AF4000028	Rubber Foot	Ø3	4					
29	AF4000029	Remote Control Label		1					
30	AF4000030	Remote Control Top Cover		1					
31	AF4000031	Battery		2					
32	AF4000032	Spring	Ø5.3xØ10	1					
33	AF4000033	Remote Control Bottom Cover		1					
34	AF4000034	Battery Cover		1					
35	AF4000035	Remote Control PCB		1					
36	AF4000036	Power Cord		1					
37	AF4000037	Strain Relief	6P-4	1					
38	AF4000038	Pan Head Screw	M5X20	1					
39	AF4000039	Fuse Holder		1					
40	AF4000040	Fuse Holder Cap		1					
41	75013	Fuse	UL250V2A	1					
42	AF4000042	Control Panel Label		1					
43	AF4000043	Flat Head Screw	M3X30	2					
45	AF4000044	Self Tapping Screw	ST4X14	2					
46	AF4000045	Printed Circuit Board		2					
47	AF4000046	Switch Box		1					
48	AF4000047	Flat Washer	Ø3* 6	4					
49	AF4000048	Lock Washer	Ø3	4					
50	AF4000049	Hex Nut	M3	4					
51	AF4000050	Wire		1					
52	AF4000051	Fan Wheel		1					
53	AF4000052	Fan Housing Cover-L		1					
54	AF4000053	Fan housing Cover-M		1					
55	AF4000054	Rubber Spacer		4					
56	AF4000055	Large Washer	5	4					
57	AF4000056	Nylon Insert Lock Nut	M5	4					
58	75010	Motor		1					
59	AF4000059	Capacitor Cover		1					
60	AF4000060	Capacitor		1					

Thank you for investing in a **POWERTEC** power tool. These products have been made to demanding, high-quality standards and are guaranteed for domestic use against manufacturing faults for a period of 12 months from the date of purchase.

This guarantee does not affect your statutory rights. In case of any malfunction of your tool (failure, missing part, etc.), please contact one of our service technician at our service line at **1-877-393-7121** from 9 AM to 5 PM, Monday to Friday, Central time. **Southern Technologies, LLC** reserves the right to repair or replace the defective tool, at its discretion.

Normal wear and tear, including accessory wear, is not covered under guarantee. The product is guaranteed for 12 months if used for normal trade purposes. Any guarantee is invalid if the product has been overloaded or subject to neglect, improper use or an attempted repair other than by an authorized agent. Heavy-duty, daily professional or hire usage are not guaranteed. Due to continuous product improvement, we reserve the right to change the product specification without prior notice.

#### **SOUTHERN TECHNOLOGIES LLC. BENCH TOP AND STATIONARY POWER TOOL LIMITED 1 YEAR WARRANTY AND 30-DAY SATISFACTION GUARANTEE POLICY**

This product is manufactured by **Southern Technologies LLC.** under a trademark license from **Southern Technologies LLC.** All warranty communications should be directed to **Southern Technologies LLC.** 206 Terrace Dr. Mundelein, IL 60060, Attn: **Southern Technologies Service Bench Top and Stationary Power Tool** technical service at (toll free) 1-877-393-7121.

#### **30- DAY SATISFACTION GUARANTEE POLICY**

During the first 30 days after the date of purchase, if you are dissatisfied with the performance of this **Southern Technologies** tool for any reason you may return the tool to the Retailer from which it was purchased for a full refund or exchange. To receive a replacement tool you must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the one year warranty period.

#### **WHAT IS COVERED UNDER THE LIMITED ONE YEAR WARRANTY**

This warranty covers all defects in workmanship or materials in this **Southern Technologies** tool for a one year period from the date of purchase. This warranty is specific to this tool.

#### **HOW TO OBTAIN SERVICE**

To obtain service for this **Southern Technologies** tool you must return it, freight prepaid, to an authorized **Southern Technologies** service center for bench top and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-877-393-7121 or by logging on to the **Southern Technologies** website at [www.southerntechllc.com](http://www.southerntechllc.com). When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. The authorized service center will repair any faulty workmanship, and either repair or replace any defective part, at our option at no charge to you.

#### **WHAT IS NOT COVERED**

This warranty applies only to the original purchaser at retail and may not be transferred. This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defect resulting from misuse, abuse, neglect, alteration, modification or repair by other than an authorized service center for **Southern Technologies** bench top and stationary power tools. Warranty excludes: Consumable Items i.e. Saw Blades, Knives, Belts and Disc, Cooling blocks etc.

**SOUTHERN TECHNOLOGIES LLC., MAKES NO WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY OR PERFORMANCE OF ITS POWER TOOLS OTHER THAN THOSE SPECIFICALLY STATED IN THIS WARRANTY.**

**ADDITIONAL LIMITATIONS**

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, that cannot be disclaimed under state law are limited to one year from the date of purchase. **Southern Technologies LLC**. is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**NOTE**

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***POWERTEC***<sup>®</sup>

Southern Technologies, LLC  
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Mundelein, Illinois 60060