

# Operating Instructions and Parts Manual Square Wheel Belt Grinder

Models: J-4103, J-4126AC



Model J-4103



Model J-4126AC

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

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# **Warranty and Service**

JET 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 JET branded website.

- JET 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. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

### **Warranty Limitations**

Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

### **How to Get Technical Support**

Please contact Technical Service by calling 1-800-274-6846. Please note that you will be asked to provide proof of initial purchase when calling. If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET 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 JET website.

### **More Information**

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

### **How State Law Applies**

This warranty gives you specific legal rights, subject to applicable state law.

### **Limitations on This Warranty**

JET 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. JET 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.

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### **Product Listing with Warranty Period**

90 Days - Parts; Consumable items; Light-Duty Air Tools

1 Year - Motors; Machine Accessories; Heavy-Duty Air Tools; Pro-Duty Air Tools

2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes

5 Year - Woodworking Machinery

Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

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The JET Square Wheel Belt Grinder, Models J-4103 and J-4126AC, are designed for grinding, deburring, chamfering, and internal/external grinding of small and large parts. The Square Wheel Belt Grinder can be used to polish or buff finished parts and grind small internal radii using available accessories. Accessory changeover is quick and easy. Belt tension and tracking are easily adjustable.

The Square Wheel Belt Grinder is available in either single speed (Model J-4103) or variable speed model (Model J-4126AC). The variable speed model is controlled by an inverter that provides belt speeds ranging from 0 to 6000 SFPM.



Model J-4103



Specifications	Model J-4103	Model J-4126AC		
Stock Number	577000	577001		
Belt Width & Length	2 x 72 Inches	2 x 72 inches		
Belt Speed	4600 SFPM	0 - 6000 SFPM		
Motor	1 HP, Single Phase, 1750 rpm	1 HP, 1,750 rpm		
Contact Wheel Diameters	1-1/2, 3, & 8 inches	1-1/2, 3, & 8 inches		
Weight	115-125 pounds	120 pounds		

# **MARNING**

- Misuse of this machine can cause serious injury.
- For safety, machine must be set up, used and serviced properly.
- Read, understand and follow instructions in the operator's and parts manual which was shipped with your machine.

### When setting up machine:

- Always avoid using machine in damp or poorly lighted work areas.
- Always be sure machine is securely anchored to the floor.
- Always keep machine guards in place.
- Always put start switch in OFF position before plugging in machine.

### When using machine:

- Never operate with machine guards missing.
- Always wear safety glasses with side shields (See ANSI Z87.1)
- Never wear loose clothing or jewelry.
- Never overreach you may slip and fall into the machine

- Never leave machine running while you are away from it.
- Always shut off the machine when not in use. When servicing machine:
- Always unplug machine from electrical power while servicing.
- Always follow instructions in operators and parts manual when changing accessory tools or parts.
- Never modify the machine without consulting JET.

# You — the stationary power tool user—hold the key to safety.

Read and follow these simple rules for best results and full benefits from your machine. Used properly, JET machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is absolutely mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operators and Parts Manual as well as all labels affixed to the machine. Failure in following all of these warnings can cause serious injuries.

# Machinery general safety warnings

- 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.
- Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Rubber soled footwear is recommended for best footing.
- Do not overreach. Failure to maintain proper working position can cause you to fall into the machine or cause your clothing to get caught pulling you into the machine.
- Keep guards in place and in proper working order. Do not operate the machine with guards removed.
- 5. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lit.
- 6. Avoid accidental starts by being sure the start switch is OFF before plugging in the machine.
- 7. Never leave the machine running while unattended. Machine shall be shut off whenever it is not in operation.

- Disconnect electrical power before servicing.
   Whenever changing accessories or general
   maintenance is done on the machine, electrical
   power to the machine must be disconnected
   before work is done.
- Maintain all machine tools with care. Follow all maintenance instructions for lubricating and the changing of accessories. No attempt shall be made to modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.
- 10. Machinery must be anchored to the floor.
- 11. Secure work. Use clamps or a vise to hold work, when practical. It is safer than using your hands and it frees both hands to operate the machine.
- 12. Never brush away chips while the machine is in operation.
- 13. Keep work area clean. Cluttered areas invite accidents.
- 14. Remove adjusting keys and wrenches before turning machine on.
- 15. Use the right tool. Don't force a tool or attachment to do a job it was not designed for.
- 16. Use only recommended accessories and follow manufacturers instructions pertaining to them.

- 17. Keep hands in sight and clear of all moving parts and cutting surfaces.
- 18. All visitors should be kept at a safe distance from the work area. Make workshop completely

### **General Electrical Cautions**

This machine should be grounded in accordance with the National Electrical Code and local codes and ordinances. This work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

- safe by using padlocks, master switches, or by removing starter keys.
- 19. Know the tool you are using—its application, limitations, and potential hazards.

### Wire sizes

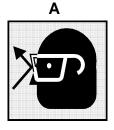
Caution: for circuits which are far away from the electrical service box, the wire size must be increased in order to deliver ample voltage to the motor. To minimize power losses and to prevent motor overheating and burnout, the use of wire sizes for branch circuits or electrical extension cords according to the following table is recommended:

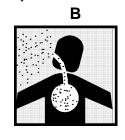
	AWG (American wire	gauge) Number	
Conductor Length	240 Volt Lines	120 Volt Lines	
0 - 50 Feet 50 - 100 Feet Over 100 Feet	No. 14 No. 14 No. 14	No. 14 No. 12 No. 8	

# Safety requirements for abrasive grinding machines

Abrasive grinding can be hazardous to operators and bystanders. Grinding sparks, chips and dust particles thrown off by the grinding disc can cause serious injury by contact or inhalation. To avoid such injuries you must comply with the following safety requirements:

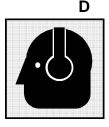
- Always wear protective eyewear when operating machinery. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1. Use of eye wear which does not comply with ANSI Z87.1 specifications could result in severe injury from breakage of eye protection. See Figure A, below.
- 2. Wear leather safety gloves, arm guards, leather aprons and safety shoes.
- A dust collection system is recommended, Operator shall also wear a dust mask at all times. See Figure B, below.
- Additional precautions may be necessary for grinding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on grinding and handling.
- 5. Do not force or jamb the workpiece into the grinding disc.
- 6. Before grinding, always allow the motor to come up to operating speed, then check the grinding disc for wobble, runout, or any unbalanced





- condition. If the disc is not operating accurately and smoothly, immediately stop the motor and make repairs before attempting any grinding operations.
- 7. Abrasive discs must be stored in a controlled environment area. Relative humidity should be 35% to 50% and the temperature should be between 60 and 80 degrees Fahrenheit. Failure to do so could cause premature disc failure.
- Examine the face of the grinding disc carefully.
   Excessive grinding which wears down to the backing material can tear the disc. Never use a disc which shows backing, nicks or cuts on the surface or edge or damage due to creasing or poor handling.
- When installing a new disc, be certain the disc is accurately centered on the drive wheel. Failure to do so could cause a serious unbalanced condition.
- 10. Always present the workpiece to the wheel while resting the workpiece firmly on the table. Failure to do so could result in damage to the workpiece or throwing of the workpiece off the wheel.
- 11. Safety shoes which comply with ANSI Z41.1 shall be worn. See Figure C.
- 12. Personal hearing protection such as ear plugs or ear muffs shall be used to protect against the effect of noise exposure. See Figure D:





# Introduction

This manual includes operating and maintenance instructions for the JET Model J-4103 and J-4126AC Square Wheel Belt Grinder. The manual also includes parts listings and illustrations of replaceable parts.

Refer to Figures 1 and 2 for key features of the Square Wheel Belt Grinder.

# Setup and Operation

The Square Wheel Belt Grinder can be mounted on a work bench or an optional pedestal. The grinder should be secured to the work bench or pedestal using the four holes in the base of the grinder. (Refer to **Assembly of Pedestal** for machines that are to be pedestal-mounted.)

### Installation of Work Rest

The work rest mounts on the left side of the head casting. Attach the work rest using the socket head cap screw provided with the machine.

The slot in the work rest has a lip against which the cap screw is tightened. Place the hole at the end of the slot over the cap screw. Then slide the rest inward until the work rest is in position in front of the contact wheel. Tighten the cap screw.

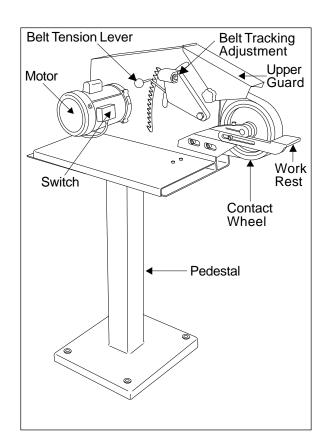


Figure 1: Square Wheel Grinder Features (single speed)

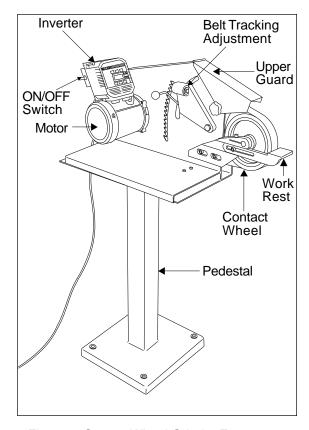


Figure 2: Square Wheel Grinder Features (variable speed)

### Vacuum Connection

**NOTE:** A variety of vacuum system options are available. (Refer to **Accessories** section.)

The grinder uses a front mounted vacuum system. Refer to Fgure 3. Install the vacuum system components as follows:

 Slide the support bracket into the channel secured to belt grinder base. Install one knob in the belt grinder base to secure the support bracket.

NOTE: Refer to vacuum scoop exploded view, Figure 11 when installing channel.

- Slide the ducted scoop onto the support bracket. Install remaining knob in the support bracket to secure the scoop.
- 3. Connect hose to exhaust duct and secure with a clamp.

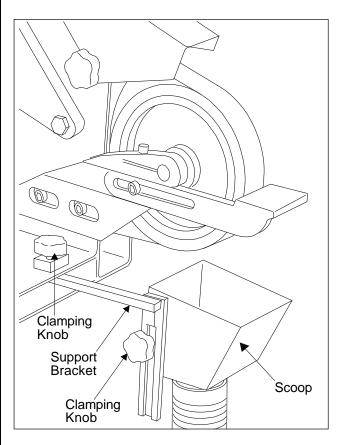


Figure 3: Vacuum Connection

### **Electrical Connection**

Refer to the Wiring Diagram section for wiring information. Connection to electrical power should be made by a qualified electrician. Observe local electrical codes when connecting the machine.

# **Operating Controls**

### **Model J-4103**

The ON/OFF switch for the Model J-4103 grinder is located in a switch box mounted on the drive motor.

### Model 4126AC

**NOTE**: Refer to Figure 4. Use only the inverter controls defined in the following procedures. The inverter is pre-programmed at the factory and requires no further programming. The controls for the Model 4126AC grinder are located on the inverter. The ON/OFF switch is located on the left side of the inverter. Start the grinder by setting the ON/OFF switch to ON.

Press the FWD RUN pushbutton on the inverter and set the speed using the up/down arrow keys (to the right of the speed display). Press the up arrow to increase speed; press the down arrow to reduce speed. The display on the inverter shows drive motor speed in revolutions per minute. Press the STOP button on the inverter to stop the grinder. Then set the ON/OFF switch to OFF.

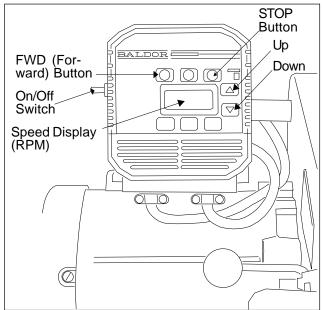
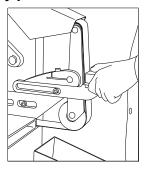


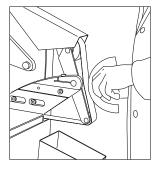
Figure 4: Operating Controls (Model 4126AC)

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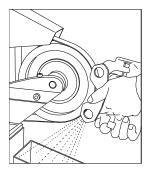
# Typical Uses for the Square Wheel Belt Grinder



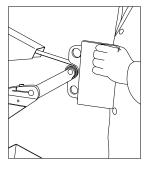
Flat or angular stock — Platen setting is the perfect angle for high speed, precision, flat and level grinding of tools, knives, plastics, and other materials. The platen allows working to very close tolerances. An adjustable work rest is standard on all models.



Shaping — For grinding and finishing cylindrical shapes. The yoke surface conforms to the shape of the surface to produce an even, smooth finish without the danger of scarring. Excellent for tool post applications.

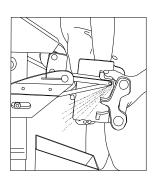


Roughing — Serrated contact wheel is used for removing heavy stock, cleaning up a weld or snagging a casting. This durable 8-inch diameter wheel is used extensively for hollow grinding and profiling knives and other culinary tools. It is standard equipment on all models.



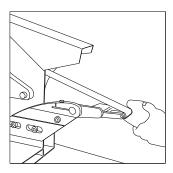
Contouring — Grind difficult, hard to reach areas with the 3-inch by 2-inch or 1-1/2 inch by 2-inch diameter contact wheels. Contours and shapes unique parts like propellers and metal furniture.

### **OPTIONAL FEATURES**



### Internal contouring

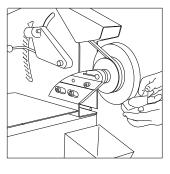
— The air-cushioned dead head is for use on very small radius grinding. When connected to a source of shop air (80-90 psi), the belt rides on a cushion of air to decrease head and belt wear. The dead head is easy to use, and adapts to any of the available radius tips.



Internal contouring with small wheel — This small wheel accessory is designed for hard to reach places. Includes 5/8-inch, 70 durometer contact wheel. Available contact wheels are 1/2-inch, 3/4-inch, and 1-inch.



Polishing — The buffing pad is perfect for satin finish or high gloss polishing. The fine, close stitched burring pads are ideal for metal and plastic



Finishing — The nylon reinforced, silicone carbide wheel is perfect for polishing and deburring. It applies a high luster finish on rough surfaces and is excellent for steel, iron, or aluminum.

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# Maintenance

# Cleaning

Shutoff the machine before cleaning. Keep the exterior of the machine clean and free of chips. Use a brush for cleaning. Periodically empty grinding dust and particles from the dust collection system.

### Lubrication

Lubrication of the grinder is not required. The drive motor and contact wheel are fitted with sealed bearings.

# Replacement of Contact Wheel

**WARNING:** BE SURE TO SET ON/OFF SWITCH TO OFF TO AVOID PERSONAL INJURY.

- 1. Refer to Figure 5. Lower the tension lever to release belt tension.
- 2. Loosen upper guard knob and swing guard back for clearance.
- 3. Loosen the contact wheel shaft clamping screw on the head casting.
- 4. Remove the contact wheel assembly.
- 5. Remove retaining rings from wheel shaft.
- 6. Remove shaft and wheel bearings.
- 7. Install bearings in replacement contact wheel.
- 8. Install shaft and secure with retaining rings.
- 9. Install contact wheel shaft in head casting.
- 10. Tighten clamping screw.
- 11. Lift tension lever to set belt tension.
- 12. Lower and adjust position of upper guard. Tighten the upper guard knob.

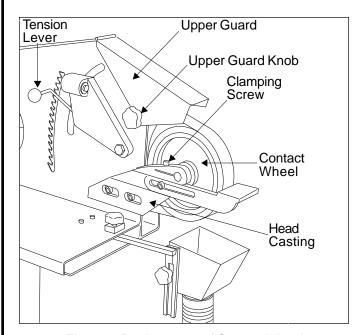


Figure 5: Replacement of Contact Wheel

### Installation of Platen

**WARNING:** BE SURE TO SET ON/OFF SWITCH OFF TO AVOID PERSONAL INJURY.

- 1. Refer to Figure 6. Lower the tension lever to release belt tension.
- 2. Loosen upper guard knob and swing guard back for clearance.
- 3. Loosen the contact wheel shaft clamping screw on the head casting.
- Remove contact wheel (see Replacement of Contact Wheel).
- 5. Install pivot shaft of platen in head casting. Position platen as desired.
  - A. For grinding flat or angular work pieces, position the platen with the platen surface facing outward.
    - B. For grinding of cylindrical work pieces, position the platen with the "yoke" side facing outward.
    - C. Set at desired angle.
- 6. Tighten clamping screw.
- 7. Lift tension lever to set belt tension.
- 8. Lower and adjust position of upper guard. Tighten the upper guard knob.

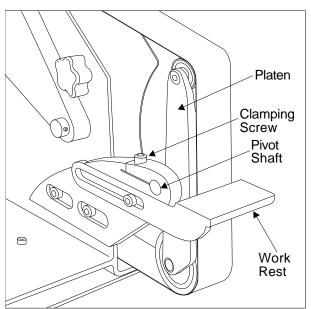


Figure 6: Installation of Platen

# Replacement of Grinding Belt

**WARNING:** DO NOT OPERATE THE MACHINE WITH THE SIDE PANEL OPEN. DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

- 1. Refer to Figure 7. Lower the belt tension lever to release tension on the belt.
- 2. Loosen the knob on the left side of the machine and raise upper guard. Turn the knob on the side panel and lower the side panel.
- 3. If required, loosen work rest to provide clearance for belt removal.
- Remove the belt from the drive wheel, idler wheel, and contact wheel. Install the replacement belt over the drive wheel, idler wheel, and contact wheel.
- Raise the belt tension lever to tighten the belt against the wheels. Tighten the belt until it is just taut. A moderate tension will provide faster cutting, longer belt life, and better tracking. Do not over-tension the belt.
- Check belt tracking by spinning the drive wheel by hand. Adjust tracking if required. (Refer to Checking Belt Tracking.)

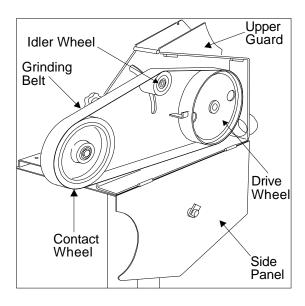


Figure 7: Replacement of Grinding Belt

# **Checking Belt Tracking**

**WARNING:** DO NOT OPERATE THE MACHINE WITH THE SIDE PANEL OPEN. DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE PERFORMING ANY MAINTENANCE.

1. Loosen the knob on the left side of the machine and raise upper guard. Turn the knob on the side panel and lower the side panel.

- Spin the drive wheel by hand and check tracking of the belt. If the belt tracks either right or left, adjustment is required.
- Use an Allen wrench to change the alignment of the idler wheel. Turn the idler adjustment screw clockwise to cause the belt to track right. Turn the idler adjustment screw counterclockwise to cause the belt to track left.
- Close side panel and secure by turning the knob on the panel. Lower the upper belt guard and secure with the knob on the left side of the grinder.
- 5. Connect electrical power and start the grinder. Check belt tracking (the belt should be centered on the contact wheel.
- If required, adjust belt tracking to center the belt on the contact wheel. Turn the idler adjustment screw clockwise to move the belt to the right. Turn the idler adjustment screw counterclockwise to move the belt to the left.
- 7. If the belt does not track properly, increase belt tension. Repeat steps 1 through 6.

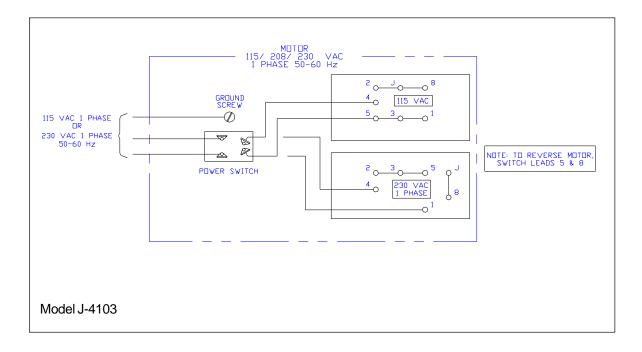
# Replacement of Inverter

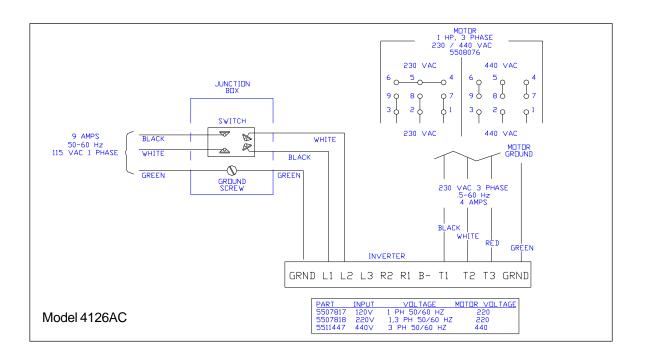
WARNING: DISCONNECT ELECTRICAL POWER
TO THE MACHINE BEFORE PERFORMING ANY
MAINTENANCE.

- 1. Disconnect electrical power.
- Remove access panel on front of inverter. Disconnect inverter wiring.
- 3. Remove four screws (1) and four nuts (6) from inverter (2). Separate inverter (2) from mount (4).
- 4. Install replacement inverter (2) and secure with four screws (1) and four nuts (6).
- 5. Connect electrical wiring (refer to Wiring Diagram section for connections).
- Start belt grinder and check for proper operation.

NOTE: Inverter is pre-programmed at the factory, further programming is not required.

# Wiring Diagrams





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### 13

# Troubleshooting

Problem	Probable Cause	Suggested Remedy
Poor Tracking	<ol> <li>Improper belt splice.</li> <li>Excessive belt tension.</li> <li>Insufficient belt tension.</li> <li>Worn contact surfaces.</li> </ol>	<ol> <li>Check belt for irregular seam or shape.</li> <li>Set tension so belt is just taut.</li> <li>Set tension so belt is just taut.</li> <li>Check elastomer on contact wheels.</li> <li>Replace worn wheels.</li> </ol>
	5. Misaligned contact surfaces.	5. Check alignment of drive wheel and contact wheels. The drive pulley and contact wheel must be aligned. To adjust drive wheel, loosen set screws and move drive wheel in or out on motor shaft as required. To adjust contact wheel, loosen shaft clamping screw and move contact wheel in or out as required.
	6. Lack of crown on drive wheel.	<ol><li>Check for 1/16-inch crown. Replace drive wheel if crown is not present.</li></ol>
	7. Worn bearings.	<ol> <li>Check all bearings for overheating or damage. Replace worn or damaged bearings.</li> </ol>
Slack Belt	Insufficient belt tension.	1. Set tension so belt is just taut.
Contact Wheel Wear	<ol> <li>Excessive belt tension.</li> <li>Grinding in one area on belt.</li> </ol>	<ol> <li>Set tension so belt is just taut.</li> <li>Use entire work surface of belt when ever possible.</li> </ol>
	3. Excessive grinding deposits on belt and debris in machine.	3. Periodically clean interior of grinder.
Short Belt Life	Excessive grinding pressure.	Allow the belt to do the cutting.     Excessive pressure dulls the belt and removes the grit from the belt.

# Replacement Parts

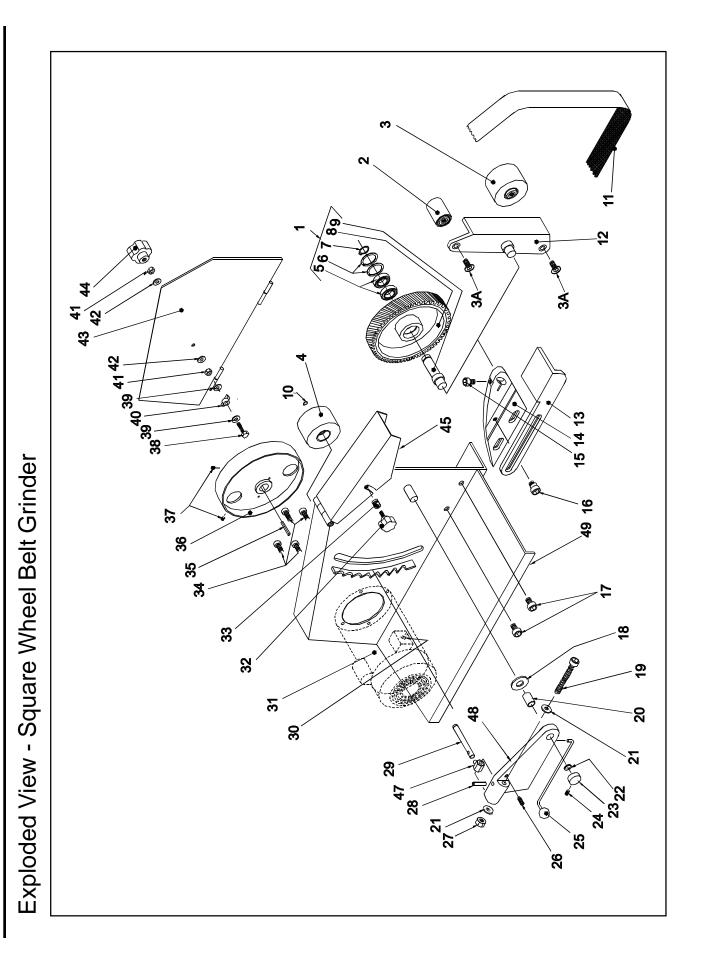
This section provides exploded view illustrations that show the replacement parts for the JET Models J-4103 and J-4126AC Square Wheel Belt Grinder. Also provided are parts listings that show part number, description and quantity. The item numbers on the illustration relate to the item number in the facing page of the parts listing.

Order replacement parts from:

### JET

427 New Sanford Road LaVergne, Tennessee 37086 Phone: 800-274-6848

Identify the replacement part by the part number shown in the parts listing. Be sure to include the model number and serial number of your machine when ordering replacement parts to assure that you will receive the correct part.

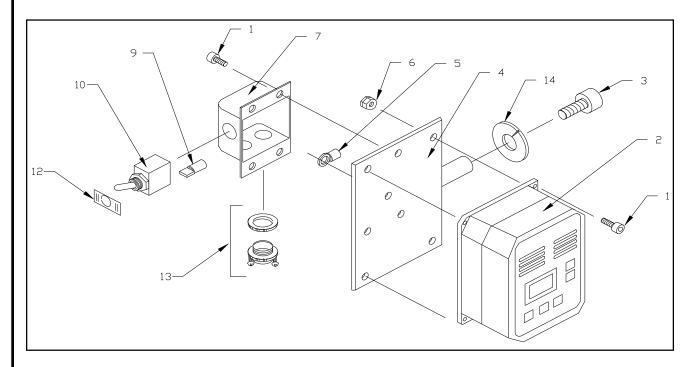


# Parts List - Square Wheel Belt Grinder

,	_	_	_	_	_	7	_	7	7	7	_	_	_	_	_		_	_	_	_	_	_	7	_	_	_	7	_	_	_	_	_	_	_	_	
Description	Contact Wheel Assy, 10 x 2 Serrat, 90 Duro	Contact Wheel Assy, 8 x 2 Smooth, 50 Duro	Contact Wheel Assy, 8 x 2 Serrated, 50 Duro	Contact Wheel Assy, 1-1/2 x 2	Contact Wheel Assy, 3 x 2	Screw, Flat Head Cap	Idler Wheel	Bearing	Retaining Ring, Internal	Retaining Ring, External	Contact Wheel, 8 x 2 Serrated, 50 Duro	Contact Wheel, 8 x 2 Smooth, 50 Duro	Contact Wheel, 10 x 2 Serrated, 90 Duro	Shaft, 8 x 10 Wheel	Retaining Ring, External	Abrasive Belt, 2 x 72, 50 Grit (Standard -	optional grit below) (10 piece minimum order)	Platen Casting	Work Rest Casting	Head Casting	Screw, Socket Head Cap 3/8-16 x 1	Screw, Work Rest Machine	Screw, Socket Head Cap 3/8-16 x 5/8	Flat Washer, Nylon 1/2 I.D. x 1 O.D.	Scr, Socket Head Cap, FII Thrd, 3/8-24 x 3	Bearing, Idler Housing	Flat Washer, Nylon, 3/8	O-Ring, 1/2	Cap, Idler Housing Pin	Set Screw, Socket Head 1/4-20 x 1/4	Lever, Tension	Set Screw, Nylon Tipped 5/16-18 x 3/4	Locknut, Hex, 3/8-24	Roll Pin, 3/16 x 1-1/2	Shaft, Idler Pulley	
Mailibei	5510944	5510943	5510942	5044590	5044610	9049821	5507582	9100331	9074011	9074081	5510946	5510947	5510948	5053231	9074381	9112811		J-5044400	J-5044410	J-5044370	9128441	5049990	9129881	9055361	9129861	5046571	9055381	9010271	5044651	9133041	5046560	9133191	9129561	9059811	5053301	
No.	1			7	က	3A	4	2	9	_	ω			<u>ი</u>	9	=		7	<u></u>	4	15	16	1	8	9	 8	7	23	ಜ	74	22	28	27	28	<u>୍</u> ଷ	

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8 3	5541241	Switch (Model 4103 only)	
<u></u>	9066821 5508076	Motor & Switch, 1 HP, 1-Phase (J-4103) Motor, 1 HP, 3-Phase (J-4126AC only)	
32	9070361	Knob, Hand	_
8 8	9070781	Nut, Allen, 5/16-18	
¥ %	91286/1	Bolt, Hex Head, W/Nylock 3/8-16 x 3/4 Kev. 3/16 x 3/16 x 1-1/4	4 ←
98	5044511	Pulley, Drive	_
37	9054541	Set Screw, Socket Head 5/16-18 x 1/2	7
8 8	5630451	Screw, Socket Head Hex 5/16-18 x 1-1/2	<b>←</b> 0
₹ €	507/041	Lock Wasner, 5/16	ν <del>-</del>
<del>4</del>	5630061	Latch; Cani Nut. Hex. 5/16-18	
42	5507583	Washer, Nylon 5/16	7
43	5055311	Door	_
4	9070371	Knob, Hand	_
54	J-5044630	Guard Flap Assembly	<del>-</del>
8 t	9057461	Washer, Flat 0.26 x 0.63 x 0.06	
- Q	1 5046540	Costing Leader Assembly	
φ 6	J-5046540	Casung, Idlet nousing Main Frame Assembly	
D	J-554 1050	Maill Flaille Assellibly	-
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# Parts List - Inverter

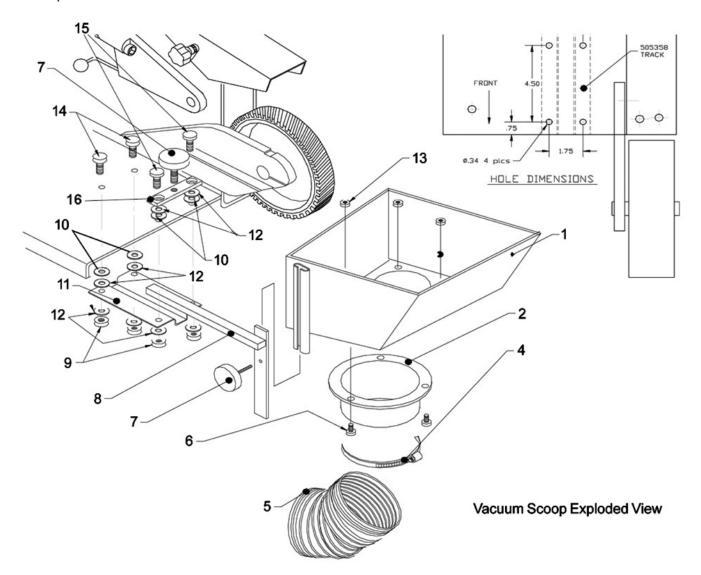


Ref.	Part		
No.	Number	Description	Qty.
1	5550874	Screw, Socket head Cap, 10-32NF x 3/8	7
2	5507817	inverter (1ph, 120V, 50/60Hz)	1
	5507818	Inverter (3ph, 220V, 50/60Hz)	
	5511447	Inverter (3ph, 440V, 50/60Hz)	
3	9128571	Screw, Hex Head 1/2-13 x 1	1
4	5515215	Mount, Inverter	1
5	9119481	Terminal, Full Closed	1

Ref.	Part		
No.	Number	Description	Qty.
6 7 9	5507934	Nut, Lock, 10-32 Nylock Box, Switch Spade, Female 16-14AWG	4 1 4
10	9117401	Switch, Toggle	1
12 13	9085061	Dial, ON-OFF Grip, Cord	2
14	5628371	Lock Washer, 1/2	1

# Exploded View - Vacuum Scoop

A vacuum scoop connects the machine to the vacuum system. The mounting provisions for the scoop are shown `in the exploded view below.



Ref. No.	Part Number	Description	Qty.
1	5053531	Scoop	1
2	5052470	Adapter, Hose	1
4	5507534	Clamp, Hose 3in.	2
5	5507533	Hose, 3x5 in.	1
6	9128241	Screw, HH Cap	3
7	9070361	Knob	2
8	5053571	Rail	1
9	9032961	Lock Nut, Nylon Insert	4

Ref. No.	Part Number	Description	Qty.
10	5507583	Washer, Nylon	4
11	5053581	Channel	1
12	9057391	Washer, Flat	8
13	9056411	Nut, Hex Jam	3
14	6715174	Screw, SHCS, 5/16-18x3/4)	2
15	5501116	Screw, SHCS Low Head, 5/16-18x1-1/2	2
16	5511373	Leverage Plate	1

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# Accessories

### **Belt Grinder Pedestal**

The optional pedestal enables the Square Wheel Belt Grinder to be mounted in a free standing configuration rather than on a work bench. The grinder is secured to the pedestal using the four holes in the base of the grinder - follow the below instructions.

# Assembly of Pedestal

### Unpacking

The grinding machine pedestal is shipped separately from the grinding machine. Transport the shipping containers to the installation site before unpacking.

Unpack the pedestal and grinding machine. Locate and open the plastic bag containing four 5/16-18 socket head cap screws. Verify that that there are two screws 1-inch long and two screws 1-3/4 inches long (Figure 16, View A).

### **Securing the Pedestal**

WARNING: BOLTING THE PEDESTAL TO THE FLOOR IS STRONGLY RECOMMENDED. THE PEDESTAL IS BOLTED TO THE FLOOR TO ELIMINATE THE POSSIBILITY OF TIP-OVER WHILE THE MACHINE IS BEING OPERATED. FAILURE TO DO SO CAN RESULT IN INJURY TO THE OPERATOR AND/OR OTHER NEARBY PERSONNEL.

The pedestal has four mounting holes in its base. Use these mounting holes to secure the pedestal to the floor before installing the grinder. Shims should be used to level the pedestal before the attaching bolts are tightened.

### **Assembly**

WARNING: THE MACHINE MOUNTING PLATE IS NOT CENTERED ON THE LEG OF THE PEDESTAL. THIS OFFSET EVENLY DISTRIBUTES THE WEIGHT OF THE GRINDING MACHINE. MAKE SURE THE GRINDING MACHINE IS CORRECTLY POSITIONED AND SECURED TO THE PEDESTAL BEFORE LEAVING THE MACHINE UNATTENDED. FAILURE TO CORRECTLY POSITION AND SECURE THE MACHINE COULD RESULT IN THE MACHINE TIPPING OVER, CAUSING INJURY TO PERSONNEL.

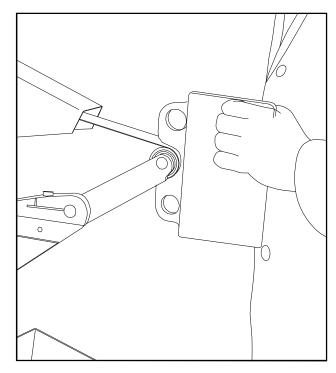
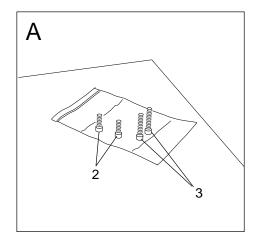


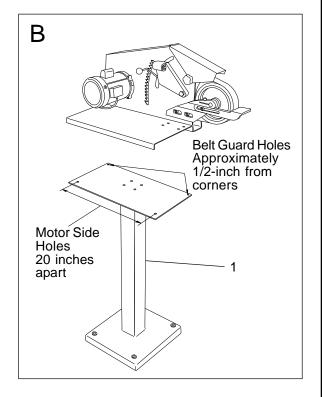
Figure 15: Contouring Using Small Diameter Contact Wheel

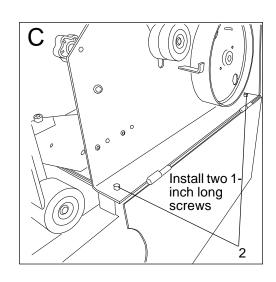
There are four mounting holes in the mounting plate on the pedestal. The holes on the motor side of the machine are approximately 20 inches apart. The holes on the belt-guard side of the machine are located approximately ½-inch from the corners of the plate. When correctly installed, all four screw holes in the machine base plate and belt guard will align with the holes in the mounting plate of the pedestal.

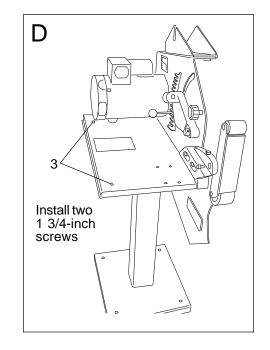
### **Mounting Procedure**

- A. Using two people or a hoisting device, lift the grinding machine and set it on the pedestal. Align all four screw holes in the machine base plate and belt guard with the holes in the mounting plate of the pedestal (Figure 16, View B).
- B. Open the grinding belt guard door (Figure 16, View C). Install two 5/16-18 x 1-inch long screws in the base of the grinding belt guard. Install screws finger-tight.
- C. Install the two 5/16-18 x 1-3/4-inch long screws in the screw holes on the motor side of the machine base (Figure 16, View D). Tighten all four screws.









Ref. No.	Part Number	Description	Qty.
1	J-524808	Pedestal	1
2	9062121	Socket Head Cap Screw (5/16-18 x 1)	2
3	5511051	Socket Head Cap Screw (5/16-18 x 1 3/4)	2

Figure 16: Assembly of Grinding Machine and Pedestal



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